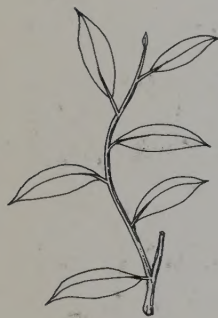
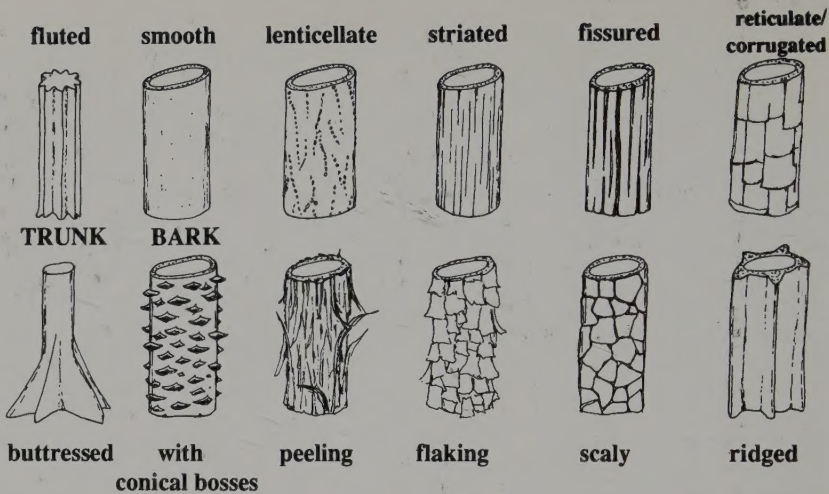
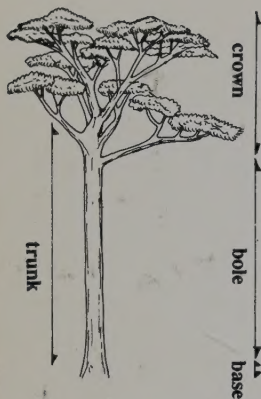


KENYA TREES SHRUBS AND LIANAS

HENK BEENTJE



Paintings by Joy Adamson



alternate

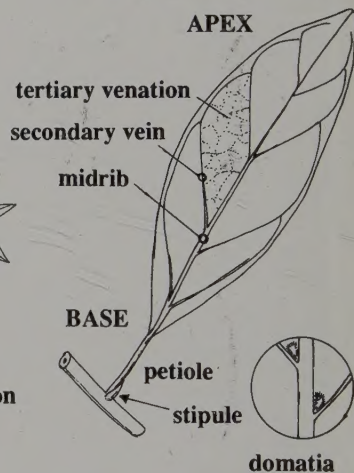


opposite



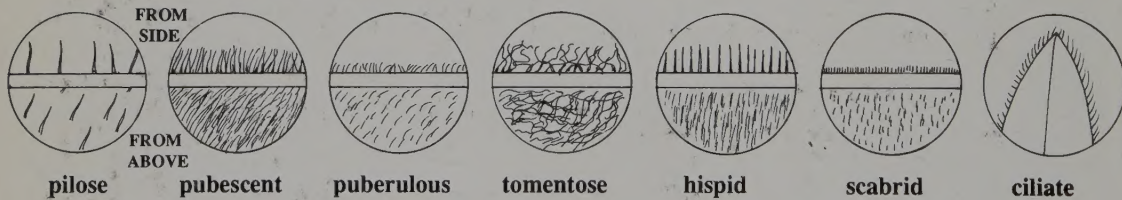
whorled

fascicled or crowded on short shoots

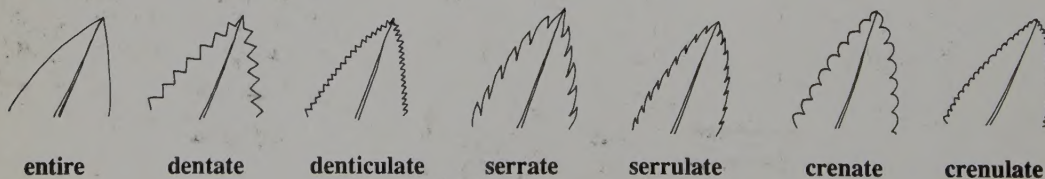


LEAF ARRANGEMENT

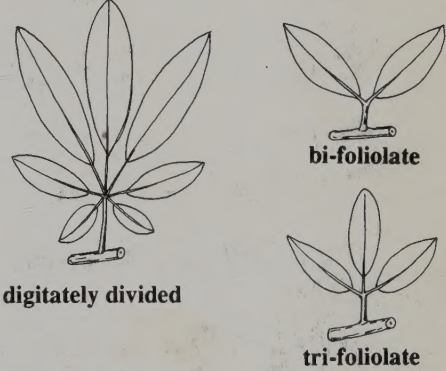
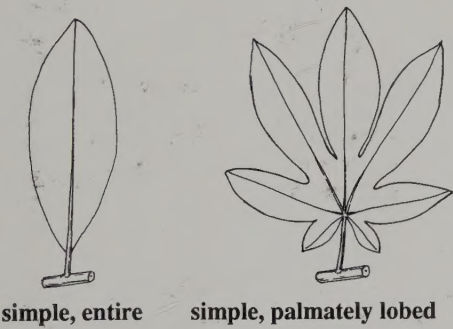
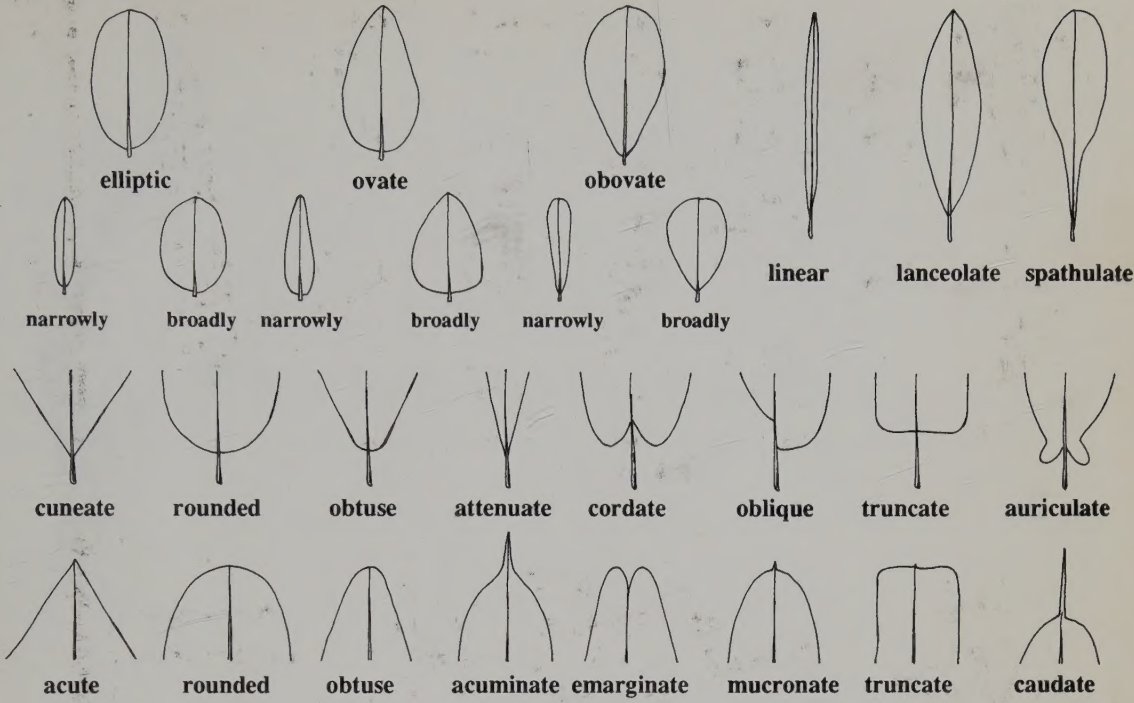
HAIRYNESS (much enlarged)



LEAF MARGINS



LEAF SHAPE



SIMPLE LEAVES

COMPOUND LEAVES

pinnately lobed



pinnately divided



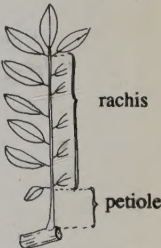
imparipinnate
(single top leaflet)



paripinnate
(pair of top leaflets)



bipinnate



KENYA

TREES, SHRUBS AND LIANAS

Kenya trees, shrubs and lianas

H.J. BENTLEY

1994

NATIONAL MUSEUMS OF KENYA

NAIROBI

KENYA

KENYA TREES, SHRUBS AND LIANAS

H.J. BEENTJE

TEXT BOOK CENTRE LTD.
KIJABE STREET
BOX 47540 NAIROBI, KENYA.

1994

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NAIROBI
KENYA

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Contents

Foreword 1
Introduction 3
Acknowledgements 4
Date & Greenway 6
How to use the book 8
Vegetation types 10
Main key 12

**Dedicated to the youth of Kenya
in the hope that these plants
may be as much a part of their future
as they are of their past**

PTERIDOPHYTES

Cyatheaceae Tree fern

SPERMATOPHYTES

GYMNOSPERMAE: Cone-bearing plants 39

- Cycadaceae Cycas family 39
- Zamiaceae Cycad family 40

- Cupressaceae Cedar family 41
- Podocarpaceae Podoc family 43

ANGIOSPERMAE: Flowering plants

DICOTYLEDONS 43

- Annonaceae Soursop family 43
- Meliaceae Lemonwood family 55
- Lauraceae Avocado family 56
- Hernandiaceae 57
- Ranunculaceae Buttercup family 59
- Berberidaceae Berberis family 60
- Menispermaceae Curat family 60
- Aristolochiaceae 65
- Piperaceae Pepper family 66
- Turneraceae 66
- Capparidaceae Caper family 67
- Moringaceae Moringa family 81
- Violaceae Violet family 83
- Polygalaceae 86
- Crassulaceae 87
- Portulacaceae 87
- Polygonaceae Sorrel family 88

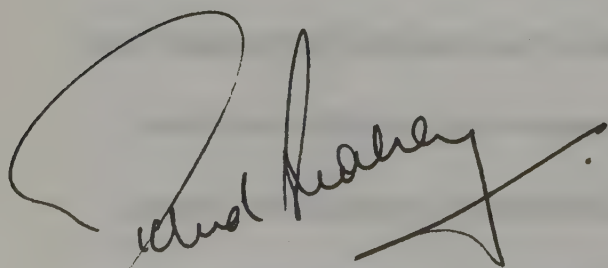
- Phytolaccaceae 89
- Chenopodiaceae 89
- Amaranthaceae 91
- Balsaminaceae Broom family 91
- Lythraceae Heave family 92
- Soumeratiaceae 93
- Oliniaceae 94
- Gnaphalaceae Puchsia family 94
- Thymelaeaceae 95
- Nyctaginaceae Bongamvillea family 98
- Proteaceae Protea family 99
- Dilleniaceae 100
- Pittosporaceae 101
- Flacourtiaceae Kai-apple family 102
- Candellaceae Cinnamon family 115
- Tamaricaceae Tamarisk family 113
- Passifloraceae Passionflower family 114

- Cucurbitaceae** Cucumber family 117
Begoniaceae Begonia family 120
Caricaceae Papaya family 120
Ochnaceae Ochna family 120
Ancistrocladaceae 124
Myrtaceae Eucalypt / clove family 125
Lecythidaceae 127
Melastomataceae 128
Combretaceae Combretum family 129
Rhizophoraceae Mangrove family 142
Guttiferae Garcinia family 145
Tiliaceae Jute family 149
Sterculiaceae Cola family 161
Bombacaceae Baobab family 168
Malvaceae Cotton family 169
Malphigiaceae 174
Erythroxylaceae Coca family 177
Linaceae Flax family 180
Euphorbiaceae Rubber, Cassava, Castor oil family 179
Montiniaceae 226
Rosaceae Rose family 226
Chrysobalanaceae 230
Dichapetalaceae 231
Caesalpiniaceae Cassia family 234
Mimosaceae Mimosa family 252
Papilionaceae Pea family 278
Hamamelidaceae 314
Buxaceae Box family 314
Salicaceae Willow family 315
Myricaceae 316
Casuarinaceae Casuarina family 316
Ulmaceae 317
Moraceae Fig family 320
Urticaceae Stinging nettle family 333
Aquifoliaceae Holly family 335
Celastraceae Miraa family 335
Icacinaceae 345
Salvadoraceae Mswaki family 347
Olacaceae Sour plum family 349
Opiliaceae 351
Loranthaceae Mistletoe family 352
Santalaceae Sandalwood family 353
Rhamnaceae Buffalo thorn family 353
Vitaceae Grapevine family 361
Rutaceae Citrus family 365
Simaroubaceae 374
Balanitaceae Desert date family 377
Burseraceae Myrrh family 379
Meliaceae Mahogany family 404
Sapindaceae Mkaapwani family 411
Melanthaceae 421
Anacardiaceae Mango family 425
Connaraceae 433
Cornaceae Dogwood family 437
Alangiaceae 437
Araliaceae Mutati family 438
Umbelliferae Carrot family 442
Ericaceae Heather family 443
Ebenaceae Ebony family 445
Sapotaceae Shea butter family 449
Myrsinaceae Rapanea family 459
Loganiaceae Strychnos family 461
Oleaceae Olive family 467
Apocynaceae Lmuria family 473
Asclepiadaceae Milkweed family 488
Rubiaceae Coffee family 499
Compositae Sunflower family 552
Lobeliaceae Lobelia family 570
Goodeniaceae 571
Boraginaceae Cordia family 571
Solanaceae Potato family 577
Convolvulaceae Sweet potato family 584
Scrophulariaceae Witchweed family 588
Bignoniaceae Flame tree family 590
Pedaliaceae Sesame family 593
Acanthaceae Sarim family 594
Verbenaceae Teak family 611
Cyclocheilaceae 624
Labiatae Mint, basil family 624

MONOCOTYLEDONS 636**Musaceae** Banana family 636**Aloeaceae** Aloe family 636**Dracaenaceae** Muthari family 638**Smilacaceae** 640**Palmae** Palm family 641**Pandanaceae** Screw pine family 645**Velloziaceae** 646**Gramineae** Grass family 646**Additions** 648**Illustrations-acknowledgements** 651**Index of local names** 652**Index to species** 699**Index to families** 722**Glossary** endpapers

The Herbarium at the National Museums of Kenya was the birth place of this book and the extensive records that have been accumulated are of vital scientific value. It is my sincere hope that public support will continue to be available for the management of this unique data bank. We must guard against cuts in public spending that could lead to the loss of such vital scientific material and knowledge. The publication of this book through the facilities of a Kenyan public institution is a clear statement about the importance and unique role of that institution.

Many people have contributed to the successful completion of this volume and in particular I would mention the sustained efforts of Henk Beentje and Christine Kabuye. As years go by, there will doubtless be a need for revisions to incorporate new species and new knowledge. As this book benefited from the original *Kenya Trees and Shrubs*, the *Kenya Trees, Shrubs and Lianas* will provide a fine starting point for any new undertaking. These works remain valuable always and are important milestones for Kenya's scientific out-put.

A handwritten signature in dark ink, appearing to read 'Richard Leakey', with a large, sweeping initial 'R' and a long, horizontal stroke extending to the right.

Dr. Richard E. Leakey
Chairman, Museum Board of Governors
and Director, Kenya Wildlife Service

INTRODUCTION

This is the second book to deal with all known species of Kenya's larger woody plants. The first one was "Kenya trees and shrubs" by Dale & Greenway (1961), treating some 1000 species; the current book includes some 1800 species. The difference in number has come about in several ways: I have included lianas, which Dale & Greenway did not; and the number of species has risen considerably because of many new collections inside Kenya. I have tried to make more differences between the two books: the keys at the beginning of "Kenya trees and shrubs" were difficult to use (starting with "plants homosporous/plants heterosporous") and concentrated on minute flower characters. I have tried to make my keys easier to use, and wherever this is feasible, the keys start with vegetative characters; often it will still be necessary to obtain flowers or fruits (but not both) to be able to identify a species, but the emphasis on leaf characters focuses the recognition pattern on more permanent parts. The major drawback of this method is that the keys will not work far from the borders of Kenya!

Many people complain about the use of botanical jargon, but one cannot do without that in a book like this. These people might find that with a bit of practise, the few terms which are very common (petiole for leaf stalk is one) become familiar. I have tried to make the jargon accessible through an illustrated glossary on the end papers.

So is the knowledge of trees and shrubs of Kenya now complete? It is not. Recent investigations on the coastal forests have resulted in many new records for Kenya, and even in a few species new to science. If this can happen in an area such as the Kenyan Coast, which most people believed to be the best-investigated of the country, then there is still scope for more exciting finds in the rest of the country. And of course this book deals only with the naming and rough descriptions of trees. *Nothing*, as yet, is known about pollination of trees and shrubs; very little is known about their reactions to changes in local climate, about their growth in initial stages, about optimal growing conditions, about the age trees can reach... the list is long, and there is enough work for many interested people. A completely different field, in which there is a need for research before the knowledge disappears, is ethnobotany: the uses of wild plants, which are often part of ancient traditions, and which are definitely part of Kenya's cultural heritage.

The families have been arranged in a non-alphabetical sequence, which groups together related families. The description at the head of each family gives some salient characters; descriptions at the head of some genera give characters common to all species of such a genus. I have limited synonyms to those that have been in use in Kenya. Local names are those recorded by collectors, and have in many cases been checked by experts in the relevant language or dialect. I have omitted specimen citations, since there is much less doubt about the circumscription of names than there was in 1961; only in cases of doubtful taxa, or where I disagree with the *Flora of Tropical East Africa* specimens are mentioned. Species descriptions are short, based on a common format, and hopefully enough to confirm identification. In doubtful cases the habitat notes and distribution map might come in useful.

The purpose of this book is to enable non-technical users to identify the larger woody plants of Kenya; and so the book is intended for foresters, conservationists, agro-foresters, ecologists, wildlife scientists, horticulturalists, breeders, but also for the interested general public. Whether they use the keys to identify their plants, or look up the local name in the index, or recognize a picture, does not matter; as long as they find a name for their plant. This is all the book sets out to be. I hope it will serve well.

ACKNOWLEDGEMENTS

The production of the book was started in 1985 at the instigation of the Botanist-in-charge of the East African Herbarium, Miss Christine Kabuye, and was guided by a committee consisting of Mr. O. Mburu, Mr. Z.L. Amahwa and Mr. S.C. Mbinda of the Forestry Department, Dr. J. Odera and Mr. C.K. Kiriinya of the Kenya Forestry Research Institute, Prof. J. Kokwaro of the University of Nairobi, Mrs. C. Fayad, Mrs. S.A. Robertson as well as Miss C.H.S. Kabuye.

The publication of this book has been made possible by generous contributions towards wordprocessing and printing costs from the World Wildlife Fund (U.S.A.), towards the lay-out costs by the Bentham-Moxon Trust, and towards the final printing costs by the Netherlands Ministry of Agriculture, Nature Management and Fisheries, and the Global Environmental Facility, administered by the Food and Agriculture Organization of the United Nations. I would like to express my sincere thanks for these magnificent contributions, without which the production of this book would not have been possible. My work on the book in Holland in 1990 was supported by the Hilda & Heyo Fund, to whom I am deeply grateful. The Royal Botanic Gardens, Kew, graciously allowed me time to put the finishing touch to the book in 1993.

The Herbarium Fund of the East African Herbarium paid for the illustrations made in Kenya; I am grateful for the permission of the Keeper of the Herbarium of the Royal Botanic Garden, Kew, to use several illustrations made for the Flora of tropical East Africa; and I am very grateful to Mrs. M.E. Church for the permission to use her beautiful drawings which she made for the first "Kenya Trees and Shrubs".

I would like to acknowledge the tremendous debt I owe to the editors and authors of the authoritative and monumental "Flora of tropical East Africa". Without it the present book would be much less complete; I have relied on the published family treatments in many cases. Roger Polhill, the current editor, was also very helpful in fund-raising for the printing of the book.

I would like to thank the following people for their contributions to this book: Jan Gillett, formerly of Nairobi but presently at Kew, for the large and difficult family *Burseraceae*; Quentin Luke at the East African Herbarium (*Chenopodiaceae*, *Dilleniaceae*, *Lythraceae*, *Melanthaceae*, *Myrsinaceae*, *Olcaceae*, *Opiliaceae*) and Stella Wattima of the East African Herbarium (*Buddleia*, *Malpighiaceae*); and the illustrators, Dhan Banderi, Chebet Karago, Beatrice Wambui Muriu, Fred Ludenyi, Tom Onyango Wandolo, Mary Nicholas, Leslie Thomsett, Juliet Williamson and Sangita Patel, without whom it would be a very dull book indeed. I am grateful to the Keepers of the Herbaria at the Royal Botanic Gardens, Kew, and of the University of Wageningen for permission to make some illustrations based on illustrations within their copyright.

For comments on parts of the typescript I am grateful to the following persons: Christine Kabuye, Geoffrey Mungai, Ann Robertson and Quentin Luke at the East African Herbarium; Jan Gillett, Bernard Verdcourt, Roger Polhill, Susan Holmes, Mike Gilbert, C. Jeffrey, Martin Cheek and Dick Brummitt at Kew; Bob Faden at the Smithsonian Institution; Toon Leeuwenberg, Jan Just Bos, Roel Lemmens, Carel Jongkind and Frans Breteler at Wageningen; and Patrick Maundu of the East African Herbarium for several last-minute corrections!

Quentin Luke and Ann Robertson checked my keys carefully during their work on the coastal forests of Kenya, and added many dots to my distribution maps. Malcolm Coe of Oxford and Gerard Dekker of Nairobi strongly influenced the keys to *Acacia*. Patricia Powys of Rumuruti helped me with my treatment of *Aloe*. Mike Clifton of Nairobi and Brother Maas of Kisii helped me with additional distribution data, and Fleur Ng'weno of Nairobi gave me extra information on flowering seasons. Peter LePelley of Nairobi suggested the indexing of the local languages by language, which I consider to be a very useful improvement.

Many people helped with the spelling of local names. I am grateful to a team from the University of Nairobi, led by Prof. J.O. Kokwaro, who checked the local names included in the old "Kenya Trees and Shrubs", and obtained help from foresters in the field for correct spellings; this team also checked the spelling of local names of several languages obtained since 1961. These, and other individuals who checked spellings in their language are acknowledged in the section on local names near the end of the book.

The original typescript was typed from my handwriting by Mrs. Jane Nzioki and Miss Queen Chiuli, while Mr. Samuel Mbuvi and Mrs. Milca Karanja typed the revised text into the computer. Geoffrey Mwachala and Joshua Muasya pasted the illustrations and maps into the bromides. Quentin Luke proof-read the text most thoroughly for both typographical and factual errors, and gave many useful comments, additions, and (last-moment!) changes, for which I am very grateful; all remaining errors are, however, my own, since the final proofreading was my own responsibility. I would like to thank Hans van Dijk for access to a laser printer in the critical stages of the lay-out. I am grateful to Mrs. J. Dale for the loan of the photo of her husband.

My fieldwork was made possible by generous financial assistance from the Agricultural University of Wageningen, which made it possible to drive a 4WD Landcruiser for some 70.000 km around the country. For this, and for other support on the Dutch front, I am very grateful to them, and especially to Professor van der Maesen and the staff of the Department of Plant Taxonomy, who proposed this scheme to the University.

Not least of all I owe a debt of gratitude to the former Director/Chief Executive of the National Museums of Kenya, Dr. Richard Leakey, for whole-heartedly supporting the production of this book, for his help in soliciting funds and for cutting through red tape when needed. Dr. Mohamed Isahakia, the current Director, pursued this happy policy, and I would like to record my thanks to him as well, for solving some of the problems which accompanied the last stages of publication.

Miss Christine Kabuye, the Botanist-in-charge of the East African Herbarium, instigated the production of this book, laid the groundwork for establishing the guidance committee, supported me throughout the years with advice, and proved a pillar of strength throughout. Without her, this book would not have been started, let alone finished, and I express my sincere thanks and admiration to her.

Quentin Luke did much of the work in Nairobi after I left Kenya in 1989: organizing and overseeing the photo-mechanical transfer and pasting of illustrations, writing of fund-raising proposals, finding a wonderful illustrator, pushing the book through some slow stages - his support and unflagging hard work were invaluable.

I would like to thank the staff of the East African Herbarium for welcoming me in their midst and making me feel at home; these thanks also extend to the staff of the whole National Museums of Kenya - I thoroughly enjoyed my work here, both professionally and personally.

Many thanks to Geoffrey Mungai, Quentin Luke, Christine Kabuye, Ann Robertson, David Nyakundi, Joseph Mutangah, Bob Faden, G.R. Cunningham-van Someren, Beatrice Khayota, Malcolm Coe, Lemolio Lenakukuya, Mark Ritchie, all members of the National Museums Taita Hills Expedition and the Mrima/Dzombo Expedition, many members of the Mountain Club of Kenya (especially Graeme Watson and Paul Clarke), Trish Luke, Len Newton, Maurizio Dioli, Gilfrid Powys and my family for most enjoyable days in the field.

Last of all, I would like to thank my wife Juliet for her continuous support, her perfectionist illustrations, and for sacrificing many of our weekends and holidays to do fieldwork all over Kenya.

DALE & GREENWAY

The original "Kenya trees and shrubs" was published in 1961, and its authors were I.R. Dale and P.J. Greenway.

Ivan R. Dale, O.B.E., M.A., F.L.S. studied at Oxford and served in the Kenyan Forestry Department from 1928 to 1938, and in the Uganda Forestry Department from 1938 to 1957. He is the author of "The woody vegetation of the Coast Province of Kenya" (1939), and he revised Battiscombe's "Descriptive catalogue of some of the common trees and woody plants of Kenya Colony" in 1936, and Eggeling's "Indigenous trees of the Uganda Protectorate" in 1952. After his retirement he worked on Buchanan's Tea Estates at Sotik, and during his years there worked on "Kenya trees and shrubs". P.J. Greenway described him as "an individualist, often with unorthodox views in regard to the conduct of government business. He was extremely popular and a successful forester who has left his imprint on East African Forestry. He read widely, had a facile wit and, when one got to know him, was a delightful companion." I.R. Dale died in 1963.

Peter J. Greenway started work at Kew as a student gardener in 1921. In 1928 he came to East Africa, where he was in charge of the Amani Herbarium until its transfer to the Coryndon Museum, Nairobi in 1950. The Herbarium was then renamed "East African Herbarium", and he remained in charge until 1958; after his retirement he kept on working here until 1974. He published some 45 papers and books, among them several vegetation surveys (e.g. Lake Manyara and Tsavo East), "A Swahili-Botanical English dictionary of plant names" (1940), the still widely used "Classification of the vegetation of East Africa" (1973), and the "Check list of the trees and shrubs of Tanganyika Territory" (with J.P.M. Brenan, 1949). He was a most careful plant collector, and many of his duplicates with thorough field notes are at many herbaria all over the world. He died in 1980.

Both these authors will be remembered, at least in Kenya, mostly for their "Kenya Trees and Shrubs" (1961). This work dealt with all woody non-climbing plants over 6 feet known at the time, roughly a thousand in number; it was the first book to deal with as many species, and one has to remember that the "Flora of Tropical East Africa" had only started some 10 years before the publication of KTS. It was, and still is, a monumental work. At the moment of the writing of *this* book (1990) it is still widely used all over Kenya. If, during my safaris, I talked to foresters or other field workers about a genus such as *Tabernaemontana*, they would look at me in disbelief; not until I explained that this was the *Conopharyngia* of Dale and Greenway would they know what I was talking about, and even then, I am sure that they would continue to believe their "Tree Bible" rather than some young upstart.

I can only hope that the present book will receive some of the appreciation that "Dale and Greenway", as it is widely known, has rightly earned itself over a period of no less than thirty years.

Photo opposite: I.R. Dale (left) and P.J. Greenway (right)

Photo of I.R. Dale by Mrs. J. Dale, photo of P.J. Greenway by P. Almasry (WHO)



HOW TO USE THIS BOOK

The emphasis of this book is on the keys. These are dichotomous: they make two statements at every point, and one of these should be chosen to take the user to the next key lead or to the species, somewhat along these lines:

- | | |
|----------------------------------|-------------------|
| 1. Plant with soft yellow fruits | 2 |
| * Plant with hard brown fruits | <i>coconut</i> |
| 2. Fruit elongate, > 10 cm long | <i>banana</i> |
| * Fruit round, < 2 cm across | <i>gooseberry</i> |

The number of botanical terms may seem very large to the beginner, but terms are explained and illustrated in the glossary. One will quickly grasp their meaning when actually using the book.

I have tried to keep the keys easy and practical. Where possible I have started with vegetative characters, but in many cases these keys will leave the user stranded in a large group such as Rubiaceae, waiting for the flowers to appear.

When you have keyed out your plant, always check the description and distribution data as well as the habitat: plants have been found in places where they have not been found before, but if you have collected a forest species in the middle of a desert something may be wrong.

Family and genus descriptions are kept short, with the more salient characters or with those characters common to the species of such a group. The numbers of the families are those in use at the East African Herbarium, and may be used in tree signs; 8.15.1, for instance, would indicate the 8th family (Annonaceae), its 15th genus (*Uvariadendron*) and this genus' 1st species: *Uvariadendron anisatum*. The sequence of families is that of the Hutchinson system, which groups the families according to their relationships; this system seemed better to me, at least for the serious user, than the alphabetical order of "Kenya trees and shrubs". Also, it is the system by which the plants are arranged in the East African Herbarium at the National Museums of Kenya, Nairobi.

Species descriptions are followed by a section such as this:

K1234567; 1-4500 m; I-XII (V, XI)

in which the K-numbers indicate the rough distribution area (see map 1, on the next page);

the second group of numbers indicate the altitude range in meters (rounded off to the nearest fifty);

and the roman numerals indicate when the plant has been found in flower (in this case January, I, to December, XII); the months in brackets indicate the peak flowering seasons (here May and November). This does not necessarily correspond to the actual flowering season, as in many cases the plant occurs over a large part of the country; also, these data have been collected over many years; and so the first month given is merely the earliest for which flowering has been reported. The actual time of flowering may not be the same in two trees of the same species standing next to each other!

A star (*) indicates that I have seen fewer than 12 flowering specimens.

Hereafter there is a section on habitat (see paragraph "vegetation types")

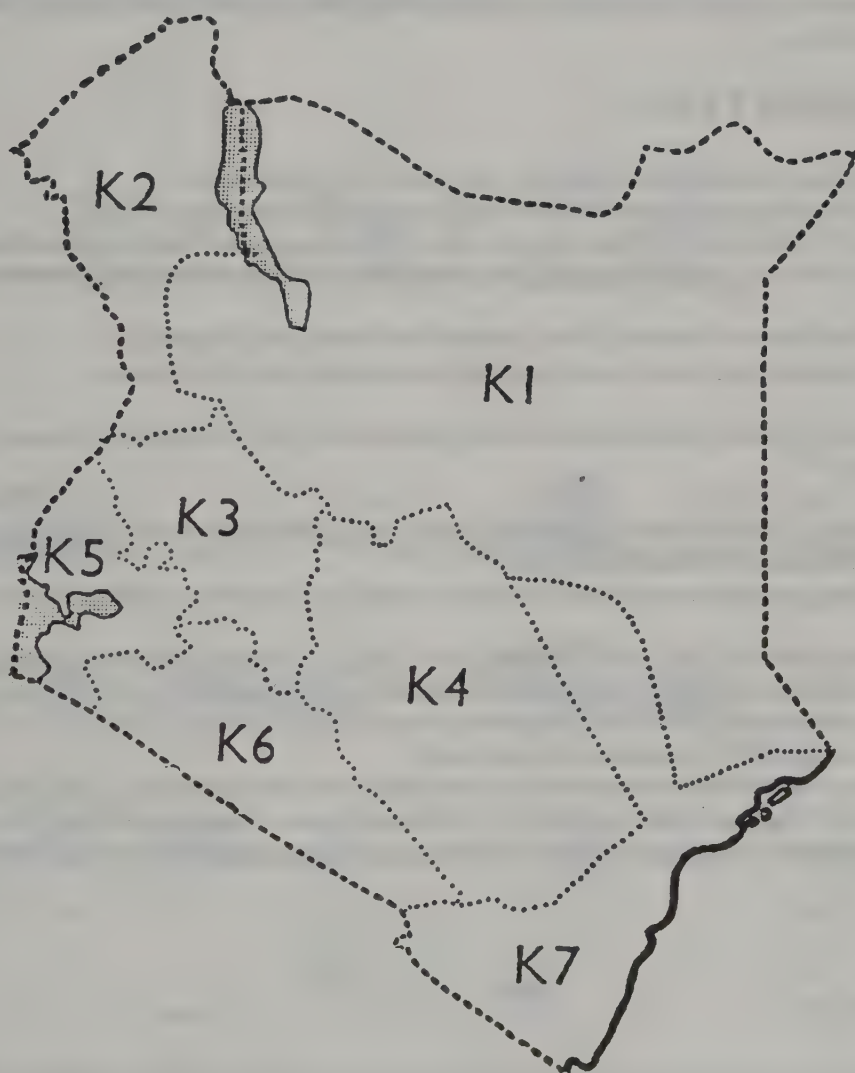
Then follow the local names by which a plant is known, followed by an abbreviation of the language, such as SWA for Swahili, SAM for Samburu, PKM for Pokomo, PKT for Pokot (see index of local names, page 654 for full list). For each language (or group of languages, such as in Luhya) those names have been given which are thought to be the most common ones.

After this the uses of the plant are given.

All these data derive from specimens at the East African Herbarium, as laid in on January 1, 1988; for rare trees, the Herbarium of the Royal Botanic Gardens, Kew, has also been consulted; and for some species of which very few specimens have been found in Kenya, material from neighbouring countries has been consulted. Some of the local uses have been taken from "Kenya trees and shrubs", though most derive from herbarium specimens which I have examined.

The distribution maps are based on maps such as Map 1: the division K1,2,3,4,5,6,7 is that of the Flora of Tropical East Africa, and is used throughout this book, in addition to the small distribution maps.

For each specimen seen the locality was plotted in the small squares of this map; from these base maps (present in the East African Herbarium) the small maps in this book were plotted using a grid with 30' sides, so each dot



on the small maps represents an area of 56 x 56km. This does not indicate how common a plant is in such an area: the dot might stand for a single collection, or for fifty... If you feel some of these maps are in need of correction, you may be right. But you'll have to prove it by sending a dried plant with full field notes to the East African Herbarium; word-of-mouth evidence is not enough!

The synonymy has been kept to a minimum, with only those synonyms being mentioned which were used in the old "Kenya trees and shrubs" or in "Upland Kenya Wild Flowers"; and in some cases in the Flora of Tropical East Africa. I have cited specimens only in cases where there is doubt about the identity of a plant, or where I disagree with the "Flora of tropical East Africa".

The conservation status (rare, vulnerable, endangered, extinct) is based on my 'Atlas of the rare trees of Kenya' in Utafiti 1, 3 (1988), with some modifications; these categories are global, which means that RARE stands for rare in a world sense; plants which are rare in Kenya, but common in other countries, do not have the IUCN status RARE..

VEGETATION TYPES

Forest: a continuous stand of trees at least 10 m tall, with interlocking crowns.

Rainforest: rainfall copious, spread over the whole year (e.g. Kakamega).

Moist forest: rainfall at least 1500 mm per year, with 1 or 2 dry periods (e.g. Southwest Mau, East Mt. Kenya).

Dry forest: distinct dry season(s); usually with fewer species than moist forest (e.g. Nairobi forests, cedar forests).

Riverine forest: narrow belts along rivers, different from surrounding vegetation.

Swamp- or groundwater forest: in areas with high groundwater table (e.g. Taveta).

Woodland: an open stand of trees at least 8 m tall; canopy cover 40 % or more. (e.g. coastal *Brachystegia* woodland).

Wooded grassland: grassland with scattered or grouped trees; total canopy cover 10-40 % (e.g. Machakos, Kitale). This used to be known as savanna.

Bushed grassland: dominant woody plants less than 6 m high (e.g. Leleshwa in the Rift Valley).

Bushland: canopy cover 40 % or more, dominant woody plants 3-7 m high; grasses present but not important.

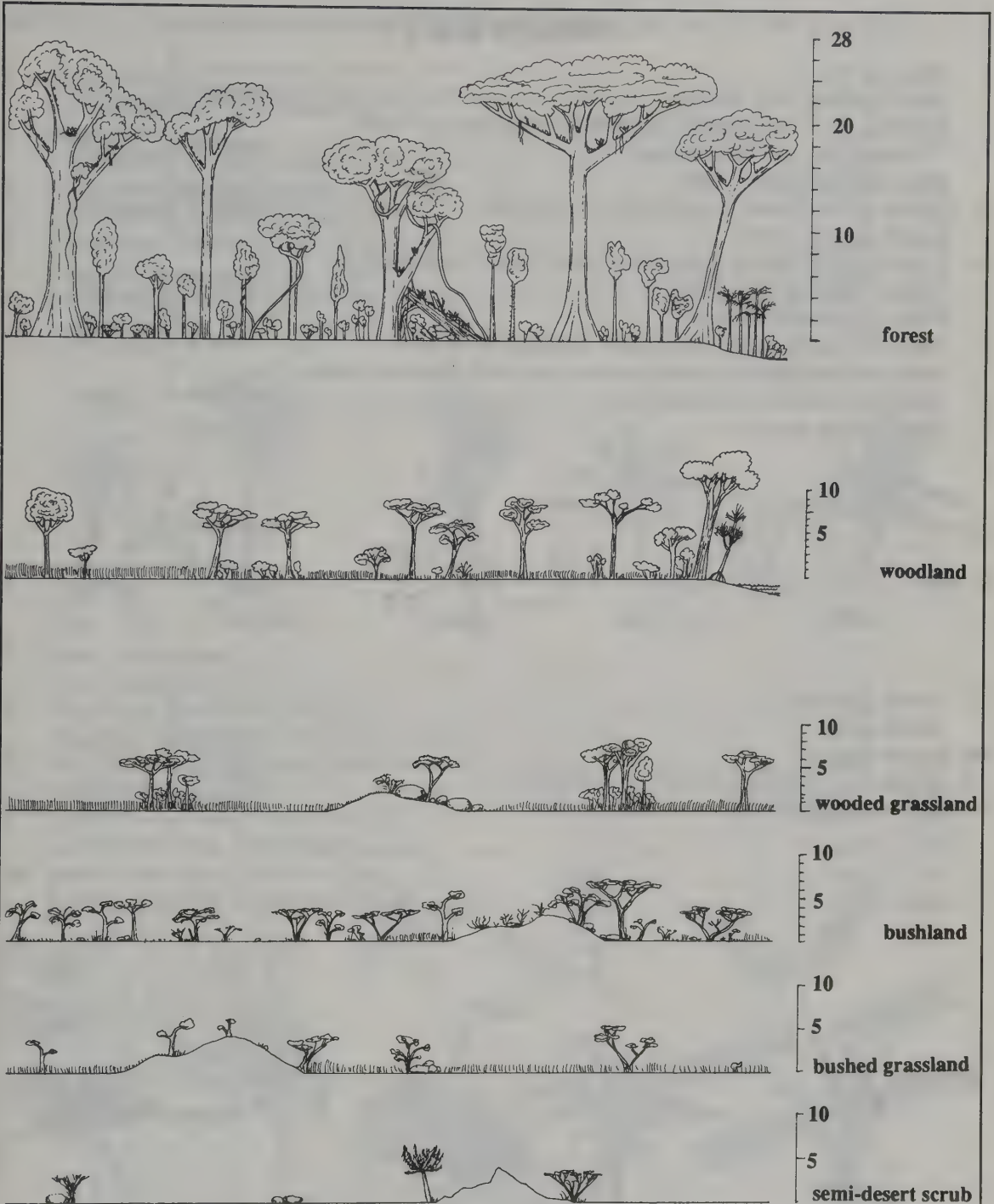
Acacia-Commiphora bushland: the commonest semi-arid type of bushland (e.g. Kora, Tsavo).

Semi-evergreen bushland: transition form between forest and dry bushland, especially in the north.

Heathzone: above 3000 m, dominated by giant heath.

Coastal evergreen bushland, coastal thicket: closed-canopy bushland near the sea, with canopy 5-7 m high. Grassland: woody plants covering less than 10 % of the area; grasses covering more than 50 %.

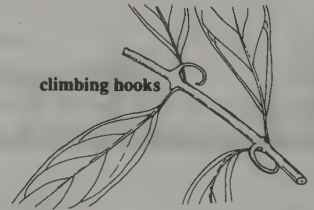
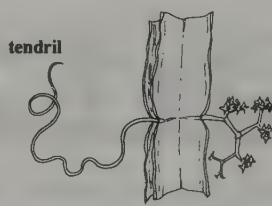
Semi-desert vegetation: with large bare areas with some grasses, dwarf shrubs and the occasional tree (e.g. near Lodwar).



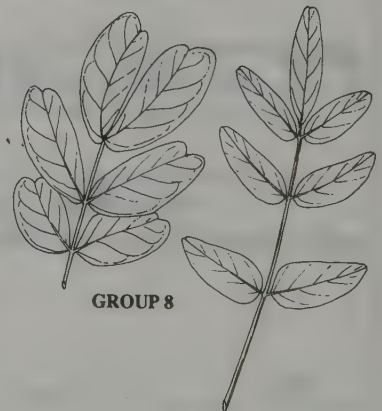
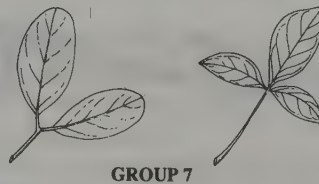
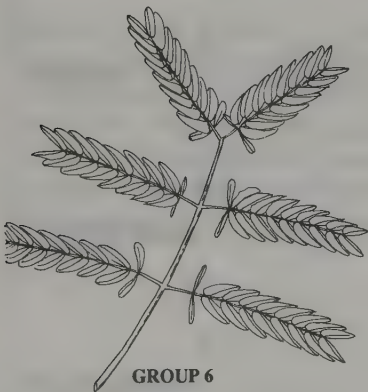
CANOPY COVERAGE OF VARIOUS TYPES OF HABITAT ALONG A LINE 1 METER WIDE

MAIN KEY

1. Plant with leaves -----2
Plant flowering when leafless -----GROUP 11p 37
2. Palm-like trees with (usually) unbranched trunks and large leaves
clustered near the top of the trunk -----GROUP 1p 13
Plants not looking like palms -----3
3. Leaves tiny and heath- or needle-like, $\leq 3\text{mm}$ wide -----GROUP 2p 14
Leaves larger or wider -----4
4. Plants with succulent or fleshy stems and/or leaves (including fleshy
tubers showing above ground) -----GROUP 3p 15
Plants not succulent or fleshy -----5
5. Plants with spines or prickles on trunk, branches and/or leaves -----GROUP 4p 16
Plants without spines or prickles (or these very small, less than 1 mm) -----6
6. Plants with tendrils or climbing hooks -----GROUP 5p 19
Plants without tendrils -----7



7. Leaves compound -----8
Leaves simple -----9
- 8a- Leaves bipinnate -----GROUP 6p 20
- b- Leaves 2- or 3-foliolate, or digitately compound -----GROUP 7p 21
- c- Leaves once pinnate with more than 3 leaflets -----GROUP 8p 23



9. Leaves alternate -----GROUP 9p 26
Leaves opposite, whorled, or fascicled -----GROUP 10p 33

GROUP 1 - Palmlike trees with large leaves near the top of the trunk(s)

1. Leaves simple2
Leaves compound or palmately lobed5
2. Leaves succulent*Aloe* p.636
Leaves thin or leathery, but not fleshy3
3. Leaves spiny along the margins*Pandanus* p.645
Leaves not spiny along the margins4
4. Trunk woody; leaves less than 10 cm wide*Dracaena* p.638
Trunk soft; leaves over 20 cm wide*Ensete* p.636
5. Leaves palmate or palmately lobed*PALMAE* p.641
Leaves pinnate6



Aloe



Pandanus



Dracaena



Ensete



Encephalartos

6. Lower leaflets spiny7
Lower leaflets not spiny9
7. Margins of upper leaflets spiny8
Margins of upper leaflets not spiny10
8. Midrib of leaflets present and clearly visible*Raphia* p.645
Midrib of leaflets absent*Encephalartos* p. 40
9. Leaflets folded along midrib, stiff*PALMAE* p.641
Leaflets not folded, soft and herbaceous*Cyathea* p. 39
10. Leaflets less than 1.3 cm wide*Cycas* p. 39
Leaflets (at least the middle ones) wider*PALMAE* p.641



Cyathea



Borassus



Hyphaene



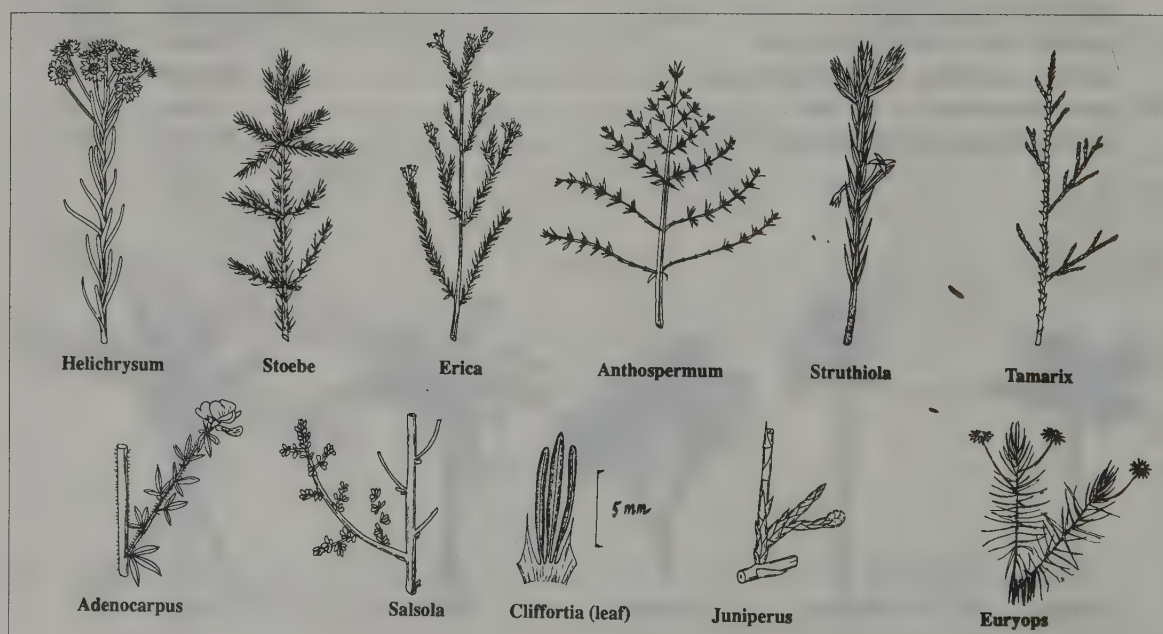
Phoenix



Raphia

GROUP 2 -Plants with the leaves heathlike, needle-like, or very narrow

1. Plants succulent *Euphorbia* p.197
Plants not succulent (though leaves may be fleshy in *Salsola* - see 6a) 2
2. Leaf base half-clasping the stem *Helichrysum* p.557
Leaf base not clasping the stem 3
3. Leaves pubescent 4
Leaves glabrous 6
4. Leaves 10-33 mm long *Helichrysum chio.* p.557
Leaves less than 10 mm long 5
5. Leaves 3-foliolate, 1-3.5 mm wide *Adenocarpus* p.281
Leaves simple, 0.5 mm wide *Stoebe* p.563
6. Leaves fleshy, boat-shaped *Salsola* p. 90
Leaves not fleshy nor boat-shaped 7
7. Leaves in whorls of 3, with inrolled margins beset with glandular teeth *Erica* p.443
Leaves neither in whorls nor with glandular teeth 8
8. Leaves with stipules 9
Leaves without stipules 10
9. Leaves trifoliolate, alternate *Cliffortia* p.227
Leaves simple, whorled in groups of four or six, or bunched *Anthospermum* p.501
10. Leaves less than 1 mm long, appressed, opposite *Juniperus* p. 41
Leaves larger, not appressed 11
11. Leaves opposite *Struthiola* p. 97
Leaves alternate 12
12. Leaves 1-3 mm long *Tamarix* p.113
Leaves 10-27 mm long *Euryops* p.557



GROUP 3 - Succulents, with fleshy tubers, stems or leaves

1. Plants with large woody tubers	14	
Plants without clearly visible tubers	2	
2. Climbers with tendrils	12	
Plants without tendrils	3	
3. Sticky white (less often clear or reddish) sap present	4	
Sticky white sap absent	5	
4. Flowers less than 10 mm long.....	<i>EUPHORBIACEAE</i>	p.179
Flowers > 20 mm long, showy	<i>Adenium</i>	p.475
5. Plants with spiny stems	13	
Plants without spines on the stems	6	
6. Leaves with spiny edges.....	<i>Aloe</i>	p.636
Leaves without spiny margins, stems without spines	7	
7. Leaves opposite, 4-11 cm long, 1.5-6 cm wide	<i>Cotyledon</i>	p. 87
Leaves alternate or in bunches, <u>or</u> , if opposite, less than 4 cm long	8	
8. Leaves peltate; moist forest species	<i>Stephania</i>	p. 63
Leaves not peltate; plants from different habitat	9	
9. Leaves glabrous, alternate or subopposite; dry bushland	10	
Leaves hairy, opposite or whorled	11	
10. Leaves ovate, linear or cylindrical	<i>CHENOPODIACEAE</i>	p. 89
Leaves obovate	<i>Calyptrorhiza</i>	p. 87
11. Bark not peeling; plant of sea shore	<i>Pemphis</i>	p. 92
Bark peeling; inland species of dry bush/grassland	<i>Asepalum</i>	p.624
12. Tendrils axillary	<i>Adenia</i> (p.114), <i>Zehneria</i>	p.119
Tendrils leaf-opposed (on the other side of the stem).....	<i>VITACEAE</i>	p.361
13. Leaf base attenuate	<i>Lycium</i>	p.578
Leaf base cordate	<i>Adenia</i>	p.114
14. Leaves 3-foliolate	<i>Vatovaea</i>	p.313
Leaves simple	15	
15. Stems spiny	<i>Adenia</i>	p.114
Stems not spiny	<i>Pyrenacantha</i>	p.346

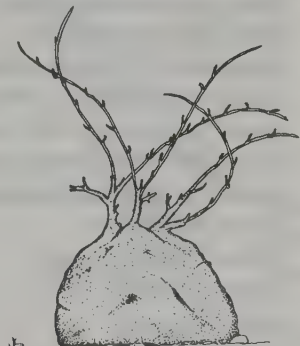


Euphorbia

Aloe

Adenium

Adenia



Pyrenacantha

GROUP 4 - Plants with spines or prickles

1.	Spines forked or branched	2	
	Spines simple	6	
2.	Leaves 2- or 3-foliolate	3	
	Leaves simple	4	
3.	Leaves 2-foliolate	<i>Balanites</i>	p.377
	Leaves 3-foliolate	<i>Berberis</i>	p. 60
4.	Leaves opposite, with white sticky white sap in all parts	<i>Carissa</i>	p.478
	Leaves alternate; no sticky white sap present	5	
5.	Leaves entire	<i>Flacourtia</i>	p.106
	Leaves palmately lobed	<i>Jatropha</i>	p.209
6.	Plants with tendrils	7	
	Plants without tendrils	9	
7.	Spines opposite	<i>Momordica</i>	p.119
	Spines alternate	8	
8.	Tendrils in pairs, climbers	<i>Smilax</i>	p.640
	Tendrils single; erect plants, often with lobed leaves	<i>Adenia</i> (p.114), <i>Zehneria</i>	p.119
9.	Leaves compound	10	
	Leaves simple	21	
10.	Leaves bipinnate	11	
	Leaves 2-foliolate to once-pinnate	12	
11.	Flowers regular	<i>MIMOSACEAE</i>	p.251
	Flowers not radially symmetric	<i>CAESALPINIACEAE</i>	p.234
12.	Leaves 2-foliolate	<i>Balanites</i>	p.377
	Leaves with more leaflets	13	
13.	Leaf rachis winged between the leaflets	<i>Harrisonia</i>	p.375
	Leaf rachis not winged	14	
14.	Spines terminating branches	15	
	Spines scattered on branches	16	
15.	Leaflets opposite; exudate often present	<i>Commiphora</i>	p.381
	Leaflets alternate; no exudate	<i>Dalbergia</i>	p.291
16.	Leaflets 3 per leaf	17	
	Leaflets 5 or more per leaf	19	
17.	Leaves glandular, aromatic when crushed	<i>Toddalia</i>	p.370
	Leaves not aromatic; glands, if present, only near leaf base	18	
18.	Trees; leaf margin entire	<i>Erythrina</i>	p.296
	Scramblers; leaf margin toothed	<i>Rubus</i>	p.228
19.	Leaves imparipinnate: with single end leaflet	20	
	Leaves paripinnate: with 2 opposite top leaflets	<i>Aeschynomene</i>	p.282
20.	Leaves pellucid-glandular; trunk of tree with spiny bosses	<i>Zanthoxylum</i>	p.372
	Leaves not pellucid-glandular; scrambler without true trunk	<i>Rubus</i>	p.228
21.	Leaves with spines	22	
	Leaves without spines	24	
22.	Leaves alternate	60	
	Leaves opposite	23	
23.	Leaves 3-9 cm long	<i>Elaeodendron</i>	p.336
	Leaves 15-40 cm long	<i>Acanthus</i>	p.596

24.	Leaves alternate or in bunches	25	
	Leaves opposite	47	
25.	Milky sap present in twigs	26	
	Milky sap absent	29	
26.	Leaves palmately lobed	27	
	Leaves entire	28	
27.	Trees with hollow trunk; wet forest	<i>Cylicomorpha</i>	p.120
	Shrubs of drier habitats	<i>Jatropha</i>	p.209
28.	Leaves in clusters on short shoots	<i>Euphorbia</i>	p.197
	Leaves spaced	<i>Maclura</i>	p.330
29.	Leaves with many small scales on the lower surface	<i>Combretum</i>	p.130
	Leaves without scales	30	
30.	Spines in pairs at the nodes	31	
	Spines alternate or scattered	34	
31.	Leaves 3-veined from base to apex	<i>Ziziphus</i>	p.359
	Leaves with different venation	32	
32.	Leaves lobed	<i>Jatropha</i>	p.209
	Leaves entire	33	
33a.	Spines recurved; scramblers	<i>Capparis</i>	p. 72
b	Spines straight; trees/shrubs; leaves rounded at apex	<i>Terminalia</i>	p.138
c	Spines straight; shrubs/trees; leaf apex acuminate	<i>Chaetacme</i>	p.318
34.	Spines terminating branches	35	
	Spines axillary to leaves, or scattered over branches	36	
35.	Leaves with entire margin	<i>Terminalia</i>	p.138
	Leaves with serrate margins	<i>Acalypha</i>	p.183
36.	Spines at leaf nodes	37	
	Spines scattered over branches, not confined to leaf nodes	45	
37.	Leaves 3-veined from base to apex	<i>Ziziphus</i>	p.359
	Leaves without 2 veins reaching to leaf apex	38	
38.	Leaves palminerved	39	
	Leaves penninerved	41	



38a Macaranga



38a Jatropha



38a Alangium



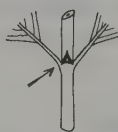
Ziziphus

39.	Leaves glandular-punctate beneath	<i>Macaranga</i>	p.212
	Leaves not glandular-punctate	40	
40.	Leaves lobed or with dentate margin	<i>Jatropha</i>	p.209
	Leaves neither lobed nor with toothed margin	<i>Alangium</i>	p.437
41.	Leaves glandular beneath	<i>Sesamothamnus</i>	p.593
	Leaves not glandular (often pellucid-punctate in <i>Dovyalis</i>)	42	
42.	Flowers/fruit with articulated stalk (rim visible)	<i>Maytenus</i>	p.339
	Pedicel not articulated	43	

- 43a. Flowers often unisexual; stamens more than 10 **FLACOURTIACEAE** p.102
 b Flowers unisexual; stamens 5 **Chaetacme** p.318
 c Flowers bisexual; stamens 3-8 **44**
44. Flowers tubular **Lycium** p.578
 Flowers without tube **Ximenia** p.350
45. Leaves glandular beneath **Sesamothamnus** p.593
 Leaves without glands **46**
46. Leaves stellate-hairy **Solanum** p.578
 Leaves without star-hairs **Euphorbia** p.197
47. Spines scattered over branches **Lantana** p.616
 Spines confined to leaf nodes **48**
48. Leaves with scales **Combretum** p.130
 Leaves without scales **49**
49. Plant with sticky white sap **Carissa** p.478
 Sticky white sap absent **50**
50. Leaves over 15 cm long, with clasping base **Anthocleista** p.461
 Plants with smaller leaves, whose base does not clasp **51**
51. Leaf apex with small spiny tip **Barleria** p.599
 Leaf apex not spiny **52**
52. Leaves glandular beneath **Sesamothamnus** p.593
 Leaves not glandular **53**
53. Stipules present between the petiole bases **RUBIACEAE** p.499
 Stipules absent from this place **54**
54. Leaves with 2 basal veins almost reaching apex **Ziziphus** (p.359), **Strychnos** p.464
 Basal veins not reaching halfway **55**
55. Mature spines straight **56**
 Mature spines recurved **59**
56. Spines terminating branchlets; fruit a round berry; flowers without tube,
 4-merous **Lawsonia** (p.92), **Strychnos** p.464
 Spines axillary to leaves; fruit various; petals absent, 5-merous, or with tube **57**
- 57a. Flowers tubular; fruit round, with conical beak **Duranta** p.615
 b Flowers tubular; fruit round **Strychnos** p.464
 c Flowers without tube; fruit different **58**
58. Flowers 4-merous; fruit globose; panicles **Azima** p.347
 Flowers 5-merous; fruit 5-winged; spikes **Quisqualis** p.138
59. Petals absent; fruit ellipsoid, ribbed **Pisonia** p. 98
 Petals 4 or 5; fruit globose **Scutia** (p.358), **Strychnos** p.464
60. Leaf margins entire; spines on leaf surface **Solanum** p.578
 Leaf margins with spines **Rinorea** p. 84



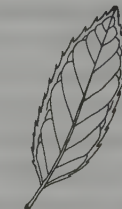
Strychnos spp.



Rubiaceae



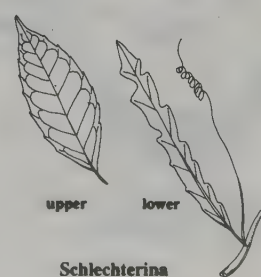
Solanum



Rinorea

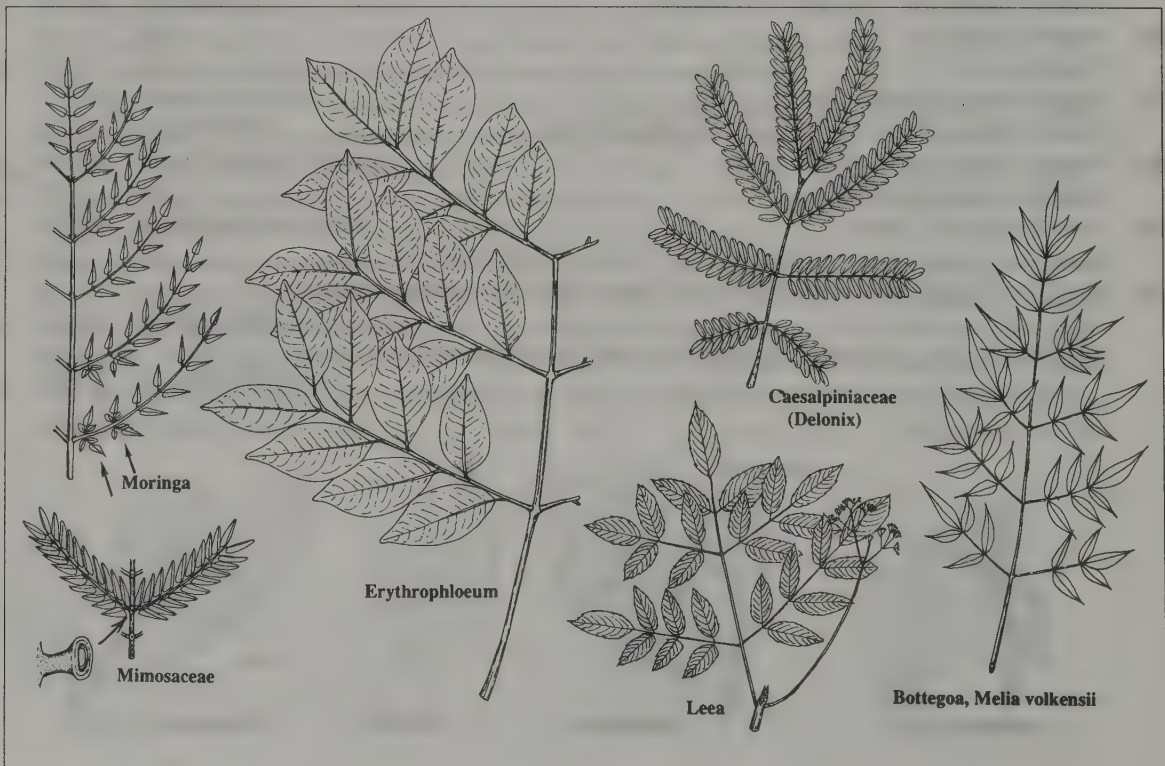
GROUP 5 - plants with tendrils or climbing hooks

1. Leaves compound 2
 - Leaves simple 4
- 2a. Leaves 3-foliolate 3
- b. Leaves 5-foliolate *Paullinia* p.422
- c. Leaves bipinnate, ending in a forked tendril *Entada* p.274
3. Leaves sandpapery *Kedrostis* p.118
 - Leaves not sandpapery *VITACEAE* p.361
4. Leaves opposite 5
 - Leaves alternate 8
5. Sticky white sap present in most parts *APOCYNACEAE* p.473
 - Sticky white sap absent 6
6. Stipules present between petioles; hooked spines present *Uncaria* p.550
 - Stipules absent from this place; tendrils present 7
7. Tendrils placed at right angles to petiole; leaves without basal veins reaching halfway
 - *Iodes* p.345
 - Tendrils in the axil of the petiole; leaves with basal veins almost reaching apex *Strychnos* p.464
8. Stipules divided into many narrow lobes *Hugonia* p.179
 - Stipules absent or entire 9
9. Climbing hooks woody, thickened 10
 - Tendrils not woody 11
10. Hooks smooth *Ancistrocladus* p.125
 - Hooks studded with remnants of peduncle *Artabotrys* p. 45
11. Tendrils branched 12
 - Tendrils simple 13
12. Tendrils inserted below petiole *Gerrardanthus* p.117
 - Tendril either opposite the petiole or on the peduncle *VITACEAE* p.361
13. Glands present on the petiole *PASSIFLORACEAE* p.114
 - Petiole without glands 14
14. Leaves palmately lobed *CUCURBITACEAE* p.117
 - Leaves entire (or pinnately lobed in lower leaves of *Schlechterina*) 15
15. Leaf base cuneate; shoots glabrous; basal veins of leaf not reaching halfway
 - *Schlechterina* p.117
 - Leaf base cordate or rounded; shoots hairy; basal veins almost reaching apex
 - *RHAMNACEAE* p.353



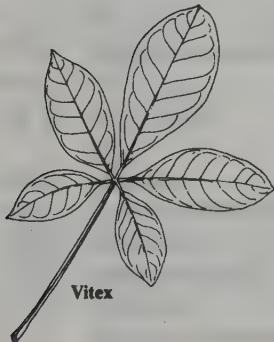
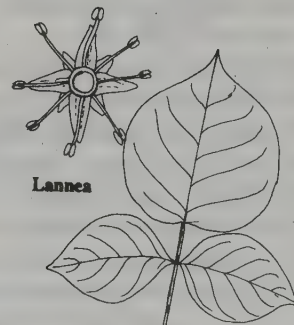
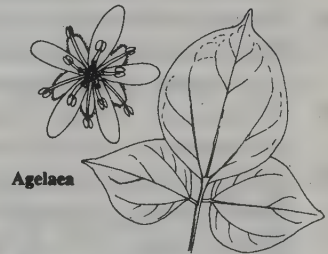
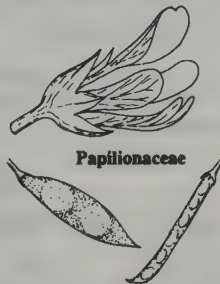
GROUP 6- Bipinnate leaves

1. Lower pinnae with some 3-4-pinnate divisions *Moringa* p. 81
Whole leaf bipinnate 2
2. Rachis or petiole of leaf with large, easily visible glands *MIMOSACEAE* p.251
No glands on rachis or petiole 3
3. Pinnae in 1 pair; leaflets up to 3 mm long *Calliandra* p.273
Pinnae in more than 1 pair (or if 1 pair, leaflets larger than 5 mm) 4
4. Leaflets alternate 5
Leaflets opposite 7
5. Leaflets 3-10 cm long *Erythrophloeum* p.243
Leaflets less than 2.5 cm long 6
6. Leaflets symmetrical *Tetrapleura* p.278
Leaflets asymmetrical *Macphersonia* p.421
7. Leaflets in 7-55 pairs per pinna; flowers symmetrical *Entada* p.274
Leaflets in fewer pairs, or flowers zygomorphic 8
8. Pinnae at the apex with opposite leaflets .*Pseudoprosopis* (p.278), *CAESALPINIACEAE* p.234
Pinnae at the apex with a single leaflet 9
9. Leaflets > 5 x 2.5 cm (western Kenya) *Leea* p.364
Leaflets < 5 x 2.5 cm (north or coastal Kenya) 10
10. Leaflets 2-5 x 0.5-2.5 cm *Melia* p.406
Leaflets 0.5-1.3 x 0.3-0.6 cm *Bottegoa* p.414



GROUP 7 - Leaves with 2 or 3 leaflets, or leaves digitately compound

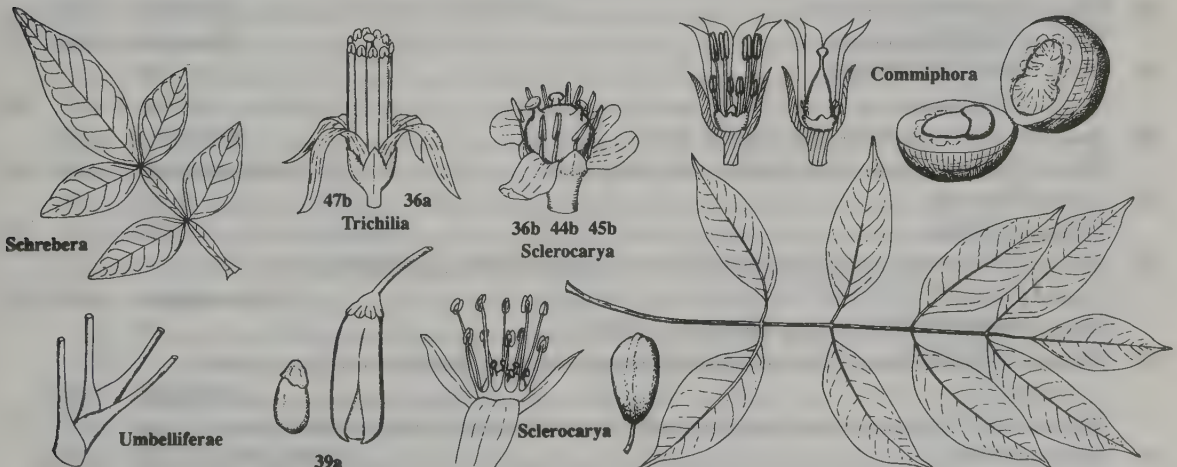
1. Leaves with 2 leaflets2
 Leaves with 3 or more leaflets3
2. Leaflets gland-dotted, with an unequal base; flowers in panicles.....*Hymenaea* p.243
 Leaflets without glands, with an equal or unequal base; flowers in spikes.....*SAPINDACEAE* p.411
3. Leaflets 4 or more4
 Leaflets 310
4. Leaves opposite (occasionally with a few alternate leaves in *Oldfieldia*)5
 Leaves alternate or crowded at shoot apex6
5. Branches round; plant dioecious; fruit 2-3-valved*Oldfieldia* p.216
 Branches square; plant monoecious; fruit a drupe without valves*Vitex* p.621
6. Leaves stellate-hairy31
 Leaves glabrous or with simple hairs only7
- 7a. Leaflet margins toothed; leaflets glabrous or hairy*ARALIACEAE* p.438
 b Leaflet margins toothed; leaflets white-pubescent beneath*Myrianthus* p.332
 c Leaflet margins entire8
8. Stipules over 1 cm long, partly connate with the petiole*ARALIACEAE* p.438
 Stipules smaller or absent9
9. Leaflets pilose; lianas, climbing by twisted petioles (Kakamega)*Illigera* p. 58
 Leaflets glabrous; trees or (scrambling) shrubs32
10. Leaves opposite or ternate11
 Leaves alternate13



11. Leaflets glandular, aromatic when crushed *RUTACEAE* p.365
 Leaflets not glandular 12
12. Twigs round; leaves with hairy pits in vein axils *Jasminum* p.468
 Twigs square; hairy pits absent *Vitex* p.621
13. Outer bark translucent and peeling, showing green underbark; plants often with aromatic
 exudate; leaves with toothed or entire margins, without glands or star hairs. *Commiphora* p.381
 Outer bark not peeling, inner bark not green; resin usually absent 14
14. Leaves with star-hairs 15
 Leaves glabrous or with simple hairs 17
15. Leaflets with glandular-toothed margins *Ricinodendron* p.220
 Leaflets with entire margins 16
16. Shrubs and trees of drier habitats *ANACARDIACEAE* p.425
 Climbers or lianas of moist forest *Agelaea* p.434
17. Aromatic resin present when a branch is cut *Commiphora* p.381
 Exudate absent 18
18. Petioles over 9 cm long, with partly adnate stipules *Cussonia* p.438
 Petioles smaller, or without adnate stipules 19
19. Leaves with sheathing base of petiole; inflorescence an umbel *Heteromorpha* p.442
 Petiole-base not sheathing 20
20. Leaflets glandular 21
 Leaflets not glandular 23
21. Leaflet margins clearly dentate/crenate; flowers less than 2 mm long *Allophylus* p.412
 Leaflet margins entire or nearly so (obscurely crenate in *Vepris*) 23
22. Flowers zygomorphic; fruit usually a legume *PAPILIONACEAE* p.278
 Flowers radially symmetric; fruit a berry or drupe *RUTACEAE* p.365
23. Leaflets with dentate/crenate margin 24
 Leaflets with entire margin 26
24. Climber; inflorescence an umbellate, dense cyme; fruit a black berry *Rhoicissus* p.364
 Shrubs or trees (rarely scrambling); inflorescence an open panicle
 or an open cyme; fruit green or red 25
25. Inflorescence a cyme; flowers imperfectly dioecious; stone of fruit with aril. *Commiphora* p.381
 Inflorescence a panicle; flowers bisexual; aril absent *Rhus* p.430
26. Flowers zygomorphic; fruit usually a legume *PAPILIONACEAE* p.278
 Flowers radially symmetrical 27
27. Stamens many, or borne on a common stalk; ovary on a stalk; inflorescence
 a corymbose raceme *CAPPARACEAE* p. 67
 Stamens < 10, not on a stalk; ovary not stalked; inflorescence a cyme,
 panicle, or spike-like 28
28. Flowers dioecious, 3-4-merous, in subumbellate cymes *Commiphora mildbr* p.397
 Flowers either bisexual or in panicles or spike-like racemes 29
29. Flowers in leaf-opposed umbellate cymes *Rhoicissus* p.364
 Flowers in panicles or spike-like racemes 30
30. Flowers bisexual; stamens of different length; disk absent *Agelaea* p.434
 Flowers dioecious; stamens of same length; disk present *ANACARDIACEAE* p.425
31. Dry bushland tree with very fat trunk *Adansonia* p.168
 Large forest tree with slender trunk *Ricinodendron* p.220
32. Veins ≤ 7 on each side of a leaflet *Ritchiea* p. 80
 Veins 7-22 on each side of a leaflet *BOMBACACEAE* p.168

GROUP 8 - Leaves once pinnate with more than 3 leaflets

1. Leaves opposite or ternate 2
Leaves alternate or fascicled 7
2. Leaf rachis more or less winged; petiole with auriculate base *Schrebera* p.472
Leaf rachis not winged; petiole not auriculate at the base 3
3. Leaflets glandular near the margin; plants dioecious *Fagaropsis* p.367
Leaflets not glandular 4
4. Base of petiole twining *Clematis* p. 59
Petiole base not twining 5
5. Sepals 4, stamens many; petals absent; fruit with hairy plume; leaflet margin serrate
..... *Clematis* p. 59
Flowers tubular; stamens 2-4; fruit without plume 6
6. Corolla with 5-13 lobes, radially symmetrical; fruit a berry *Jasminum* p.468
Corolla zygomorphic, 2-lipped; fruit a capsule **BIGNONIACEAE** p.590
7. Leaves paripinnate 8
Leaves imparipinnate 14
8. Leaf rachis winged *Pistacia* p.429
Leaf rachis not winged 9
9. Leaflets with star-hairs 10
Leaflets glabrous or with simple hairs 11
10. Leaflets \pm equal; upland species *Pistacia* p.429
Leaflets unequal; coastal species *Haplocoelum* p.418
11. Stipules present, but sometimes quickly deciduous; flowers of the legume type,
anthers 10; fruit often a legume 12
Stipules absent; flowers 4-5-merous, radially symmetrical, often dioecious; fruit
a capsule or drupe 13
12. Petals \pm equal **CAESALPINIACEAE** p.234
Petals unequal (except in *Cadia*) **PAPILIONACEAE** p.278

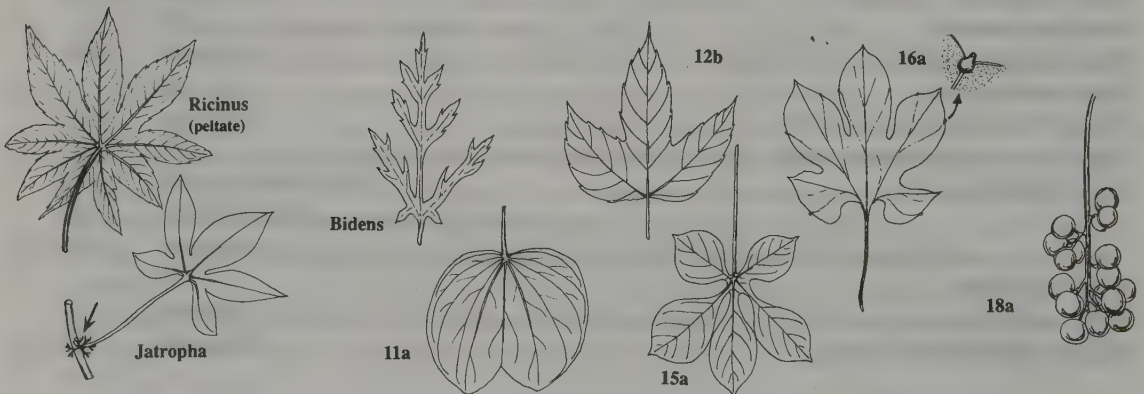


13. Sepals open in bud; stamens outside the disk; filament tube usually present;
stigma 1 *MELIACEAE* p.404
Sepals imbricate; stamens inside or on the edge of the disk; stamens not
united; stigmas 1-4 *SAPINDACEAE* p.411
14. Rachis or petiole winged 15
Neither rachis nor petiole winged 19
15. Petiole winged; leaflet margins toothed *Hagenia* p.227
Petiole not winged 16
16. Stipules large (only near young leaves) *Bersama* p.424
Stipules absent 17
17. Leaflets toothed 18
Leaflets with entire margin *Filicium* p.417
18. Midrib of leaflets with star-hairs; shrubs or trees *Lannea* p.426
Midrib with simple hairs; climber *Paullinia* p.422
19. Leaves with star- or 2-armed hairs 20
Leaves glabrous or with simple hairs 24
20. Hairs with 2 arms from central point 21
Hairs star-shaped, with many arms 22
21. Leaflets, 6 x 3 cm; shrubs, rarely scrambling *Indigofera* p.298
Leaflets 9-17 x 3-6 cm; coastal liana *Connarus* p.435
22. Leaves aromatic, especially when dry; large trees; inflorescence a large panicle *Polyscias* p.439
Leaves not aromatic; inflorescence paniculate or not 23
23. Inflorescence a panicle; style 1; disk absent *Lepidotrichilia* p.405
Inflorescence spike-like; styles 4; disk present *Lannea* p.426
24. Leaves with sheathing petiole-base *UMBELLIFERAE* p.442
Leaves without sheathing base 25
25. Leaflets with glands or pellucid dots, at least near the margin 26
Leaflets not glandular or pellucid-dotted 29
26. Leaflets 5-7 27
Leaflets 11-37 28
27. Uppermost leaflets alternate *Oxystigma* p.245
Uppermost leaflets opposite *Platycelyphium* p.306
28. Base of leaflets symmetrical *Cordyla* p.239
Base of leaflets asymmetrical *Clausena* p.366
29. Twigs with glandular hairs 30
Twigs not glandular 31
30. Base of leaflets asymmetrical; leaflets green *Kotschya* p.299
Base of leaflets symmetrical; leaflets with black dots *Ormocarpum* p.304
31. Leaflets alternate 32
Leaflets opposite 37
32. Shrubs or trees with unbranched trunk, leaves bunched at the top; inflorescence
on old wood *Chytranthus* p.415
Plants branched; inflorescence among the leaves 33
33. Stamens 2; petals absent; fruit an indehiscent pod; veins of leaflets with (lens-visible)
pustules *Dialium* p.242
Stamens 8-21; petals present; fruit a legume, drupe or capsule; veins without pustules ... 34
34. Leaflets 19-50 *PAPILIONACEAE* p.278
Leaflets 17 or less 35

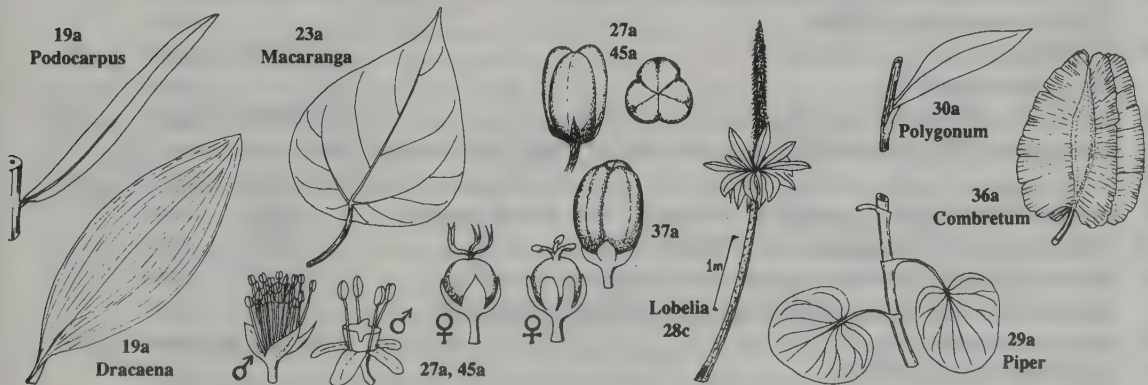
- 35a.** Fruit a legume; flowers radially symmetric and leaflets 3-5 and unequal ..*Scorodophloeos* p.248
b Fruit a legume; flowers zygomorphic*PAPILIONACEAE* p.278
c Fruit a drupe or capsule; flowers radially symmetric, disk present, and leaflets either 9-17 or (if less than 9) subequal36
- 36.** Fruit a valved capsule; leaflets unequal, the basal ones small; filaments united in a tube; style 1*MELIACEAE* p.404
 Fruit a drupe, seeds arillate; leaflets \approx equal; filaments free; styles 3 ..*ANACARDIACEAE* p.425
- 37.** Trunk often unbranched, leaves bunched at the top; inflorescence on old wood; coastal*Chytranthus* p.415
 Trunk branched, leaves spaced; inflorescence among the leaves38
- 38.** Bark peeling in scrolls, exposing the greenish underbark; resin present*Commiphora* p.381
 Bark not peeling in papery scrolls, underbark not greenish39
- 39.** Flowers bisexual, with 5 styles; fruit a follicle, splitting along 1 side; seeds with aril*CONNARACEAE* p.433
 Flowers bisexual or unisexual, with 3 styles or less (5 styles in *Polyscias* from Taita Hills); fruit not a follicle40
- 40.** Flowers with disk; fruit a berry/drupe/capsule41
 Flowers without a disk; fruit a legume, or bladder-like, or kidney-shaped, or an indehiscent pod*Dialium* (p.242)/*PAPILIONACEAE* (see 33) p.278
- 41.** Stipules present at growing shoots, large; flowers hairy; fruit a woody capsule*Bersama* p.424
 Stipules absent or minute42
- 42.** Flowers present43
 Fruits present48
- 43a.** Flowers unisexual (occ. with staminodes in female flowers/pistillode in male flowers)
 -female flowers44
 -male flowers45
- b** Flowers bisexual46
- 44.** Style 1*Commiphora* p.381
 Styles 2-4*ANACARDIACEAE* (p.425)/*SIMAROUBACEAE* p.374
- 45.** Stamens the same number as petals*ANACARDIACEAE* p.425
 Stamens double the number of petals*BURSERACEAE* (p.380)/*ANACARDIACEAE* p.425
- 46.** Style 1; stamens double the number of the petals47
 Styles 5; stamens equal in number to the petals*Polyscias* p.439
- 47.** Filaments free*Boswellia* p.380
 Filaments forming a tube*MELIACEAE* p.404
- 48.** Fruit 4-angled, *Combretum*-like*Kirkia* p.376
 Fruit not 4-angled49
- 49.** Plant aromatic; Taita Hills; fruit small*Polyscias* p.439
 Plant not aromatic50
- 50.** Fruit of 1-4 drupe-like mericarps*Brucea* p.374
 Fruit not consisting of mericarps51
- 51.** Fruit a drupe*ANACARDIACEAE* p.425
*Commiphora* p.381
*Ekebergia* p.404
 Fruit a capsule52
- 52.** Seeds with aril*Trichilia* p.407
 Seeds without aril*Boswellia* p.380

GROUP 9 - plants with alternate leaves

1. Leaves lobed2
 Leaves not lobed19
2. Leaves and branches with stinging hairs*Obetia* p.333
 Leaves and branches without stinging hairs3
3. Leaves and branches with white sticky sap*MORACEAE* p.320
 No sticky sap present4
4. Leaves with peltate base (leaf stalk inserted above base)*Ricinus* p.221
 Leaves normal, with stalk at the base5
5. Leaves with star-hairs6
 Leaves with normal hairs, or glabrous9
6. Stipules absent*Solanum* p.578
 Stipules present7
7. Filaments free*TILIACEAE* p.149
 Filaments more or less united8
8. Anthers with one theca each*MALVACEAE* p.169
 Anthers with two thecae each*STERCULIACEAE* p.161
9. Stipules absent or entire10
 Stipules divided*Jatropha* p.209
10. Leaf pinnatifid or pinnatisect*COMPOSITAE* p.552
 Leaf lobed11
11. Leaves bilobed*CAESALPINIACEAE* (p.234), *Ipomoea* p.585
 Leaves with more than 2 lobes12
12. Leaves with 5-7 lobes14
 Leaves with 3 lobes13
13. Leaf base cordate*Macaranga* p.212
 Leaf base cuneate or attenuate*Tithonia* p.564
14. Stipules present15
 Stipules absent or caducous16
15. Leaf lobed almost to the midrib*Cussonia* p.438
 Leaf lobed for less than 80 %*Sterculia* p.166
16. Hydatodes present at ends of main veins*Pyrenacantha* p.346
 Hydatodes absent17

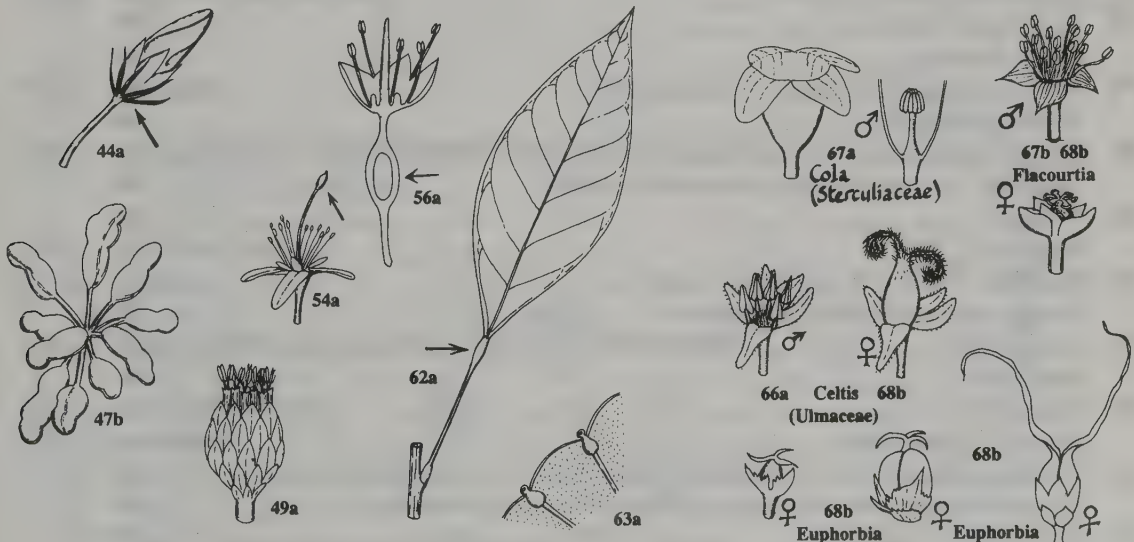


17. Trees *Gyrocarpus* p. 57
 Lianas 18
18. Flower without tube; fruit a drupe *MENISPERMACEAE* p. 60
 Flower with tube and lobes; fruit a capsule with 3-10 valves *Ipomoea* p.585
19. Leaves with invisible or parallel venation 20
 Leaves with pinnate venation 23 (Dicotyledons)
20. Trees *Podocarpus* p. 42
 Shrubs 21
21. Bamboo *GRAMINEAE* p.646
 Not bamboo 22
22. Leaves glabrous *Dracaena* p.638
 Leaves densely hairy *Xerophyta* p.646
23. Leaves peltate 24
 Leaves with stalk at very base 26
24. Trees 25
 Lianas *MENISPERMACEAE* p. 60
25. Beach trees *Hernandia* p. 58
 Inland trees *Macaranga* p.212
26. White sticky latex present in twigs, leaves and often in slash 27
 White sticky latex absent 29
- 27a Petals absent; flowers unisexual; disk often present; fruit a 3-celled capsule
 *EUPHORBIACEAE* p.179
- b Petals absent; flowers unisexual; disk absent; fruits fleshy, many growing
 closely together *MORACEAE* p.320
- c Petals present; flowers unisexual; disk present; fruit a fleshy drupe *Ozoroa* p.428
- d Petals present; flowers bisexual; fruit a capsule or berry 28
- 28a Leaves stalked; normal trees with small axillary flowers *SAPOTACEAE* p.449
- b Leaves stalked; shrubs or climbers with large (> 4cm) flowers *Ipomoea*, p.585
- c Leaves without stalk, sessile; single-stemmed shrubs with flowers in long
 spikes (> 1m) *LOBELIACEAE* p.570
29. Woody herbs with jointed nodes *Piper* p. 66
 Plants different 30
30. Petiole sheathing *Polygonum* p. 88
 Petiole not sheathing 31



31. Whole plant white-mealy *Atriplex* p. 90
 Plant not mealy 32
32. Leaves with many small scales beneath 33
 Leaves not scaly 38
33. Mangrove or seaside tree *Heritiera* p.165
 Inland tree 34
34. Leaves scaly on both sides; leaf base cordate *Thespesia* p.173
 Leaves only scaly on the underside 35
35. Leaves with star hairs on upper surface (at least near the margin) *Croton* p.190
 Leaves without star hairs 36
36. Fruit with 4-5 wings; flowers with elongate receptacle *Combretum* p.130
 Fruit not winged; flowers without long receptacle 37
37. Fruit 3-lobed; flowers monoecious *Croton* p.190
 Fruit round; flowers dioecious *Euclea* p.448
38. Leaves, branchlets and inflorescence with star hairs 39
 No star hairs present 48
39. Leaves yellowish stellate-tomentose beneath *Trichocladus* p.314
 Not yellow-tomentose on underside of leaf 40
40. Leaves with palmate venation 41
 Leaves with pinnate venation 44
41. Epicalyx present or (in *Abutilon*) anthers 1-theous *MALVACEAE* p.169
 Epicalyx absent 42
42. Plant with stipels and/or glands on leaf *EUPHORBIACEAE* p.179
 Plants without stipels and without leaf glands 43
43. Stamens more or less free *TILIACEAE* p.149
 Stamens/filaments united *STERCULIACEAE* p.161
44. Epicalyx present *MALVACEAE* p.169
 Epicalyx absent 45
45. Styles (2) 3; fruit a drupe (Anacard.) or 3-lobed (Euphorb.); flowers often dioecious
 *EUPHORBIACEAE* (p.179) or *ANACARDIACEAE* p.425
 Styles 1; fruit not 3-lobed 46
46. Leaves without stipules 47
 Leaves with stipules 43
47. Flowers with tube and lobes; fruit hidden in calyx tube *Loewia* p. 66
 Flowers with free lobes; fruit of separate monocarps *Uvaria* p. 51
48. Flowers in dense heads surrounded by bracts 49
 Flowers more or less separate 51
49. Sepals absent, corolla with tube *COMPOSITAE* p.552
 Corolla not tubular 50
50. Sepals present, coloured; petals absent; leaves leathery *PROTEACEAE* p. 99
 Both sepals and petals present, the sepals forming a long tube with the petals in its throat
 *THYMELEACEAE* p. 95
51. Flowers "naked" (with no petals or with only 1 row of free 'tepals') 52
 Both sepals and petals present, or a tubular calyx 69
52. Flowers bisexual: both stamens and ovary in a single flower 53
 Flowers unisexual: either stamens or ovary present, but not both 57
53. Leaves glandular *MYRICACEAE* p.316
 Leaves not glandular 54

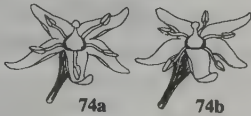
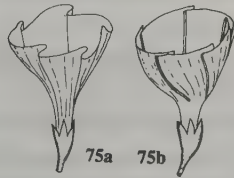
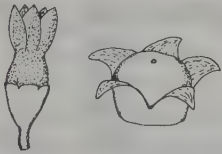
54. Flowers with a stalked ovary *CAPPARACEAE* p. 67
 Ovary not, or hardly, stalked 55
55. Stamens 4-5 *AMARANTHACEAE* p. 91
 Stamens 8-15 56
56. Ovary inferior *Terminalia* p. 138
 Ovary superior *Phytolacca* p. 89
57. Both sepals and petals absent 58
 One set (either sepals, or petals) present 59
58. Leaves glandular *MYRICACEAE* p. 316
 Leaves not glandular; river bank trees *SALICACEAE* p. 315
59. Sepals 9-18 *MENISPERMACEAE* p. 60
 Sepals 8 or less 60
60. Sepals 3 61
 Sepals 4 or more 62
61. Leaves with spiny apex; leaf margin thickened *SANTALACEAE* p. 353
 (and some *CAPPARACEAE*) p. 67
 No spiny leaf apex or thickened margin *EUPHORBIACEAE* p. 179
62. Petiole with thickened part just below the leaf blade; calyx with a short tube *Cola* p. 161
 Petiole not thickened; calyx divided to base 63
63. Leaves with hydatodes at the end of each vein; climbers *Pyrenacantha* p. 346
 Hydatodes absent 64
64. Leaves sticky with resin; stipules absent *Dodonaea* p. 416
 Leaves not resinous; stipules present (but may be caducous) 65
65. Male flowers 66
 Female flowers 68
66. Stamens the same number as the sepals *ULMACEAE* p. 317
 *URTICACEAE* p. 333
 *EUPHORBIACEAE* p. 179
 Stamens more than the number of sepals 67



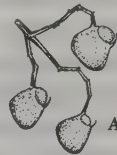
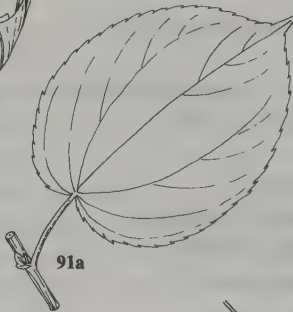
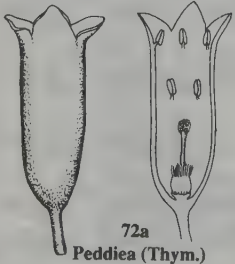
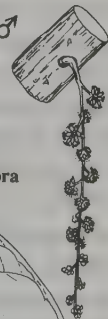
67. Stamens carried on a common stalk *Sterculia* p.166
 Stamens free *CAPPARACEAE* p. 67
 *FLACOURTIACEAE* p.102
 *EUPHORBIACEAE* p.179
68. Ovary stalked *CAPPARACEAE* p. 67
 Ovary not on a stalk *Sterculia* p.166
 *FLACOURTIACEAE* p.102
 *EUPHORBIACEAE* p.179
 *ULMACEAE* p.317
 *URTICACEAE* p.333
69. Flowers with a distinct corolla tube, or calyx tubular and looking like one 70
 Corolla lobes free 78
70. Flowers unisexual, dioecious; disk present; anthers twice as many as lobes *EBENACEAE* p.445
 Flowers bisexual 71
71. Anthers opening by pores, and twice as many as corolla lobes *ERICACEAE* p.443
 Anthers opening by slits, as many as corolla lobes 72
72. Calyx tubular, with or without corolla lobes inserted at the top; stamens 5-or 10
 *THYMELEACEAE* p. 95
 Calyx tubular; styles 3 *TURNERACEAE* p. 66
 Calyx tubular, stamens 4 *Faurea* p. 99
 Corolla tubular 73
73. Ovary superior 74
 Ovary inferior 77
74. Stamens opposite corolla lobes *MYRSINACEAE* p.459
 Stamens alternating with corolla lobes 75
75. Woody climbers; corolla folded (plicate) in bud *CONVULVULACEAE* p.584
 Trees; corolla imbricate 75
76. Style simple *SOLANACEAE* (p.577) (and *Tapura*) p.233
 Style divided *BORAGINACEAE* p.571
77. Corolla straight, slit on one side *GOODENIACEAE* p.571
 Corolla very curved, not slit *ARISTOLOCHIACEAE* p. 65
78. Ovary (half) inferior 79
 Ovary superior 85
79. Flowers unisexual, dioecious. Fleshy climbers *Begonia* p.120
 Flowers bisexual 80
80. Stamens many, at least 3 x the number of petals *LECYTHIDACEAE* (p.127), *Homalium* p.107
 Stamens < 10, less than twice the number of petals 81
81. Petals 4-5 82
 Petals 6-10 *ALANGIACEAE* p.437
82. Waterside shrubs with bright yellow petals *Ludwigia* p. 94
 Not the same combination of characters 83
83. Disk present *RHAMNACEAE* (p.353) (and some *CELASTRACEAE*) p.335
 Disk absent 84
84. Stamens 8-10 *COMBRETACEAE* p.129
 Stamens 5; forest trees *Strombosia* p.350
85. Flowers unisexual; only female or only male visible in a single inflorescence 86
 Flowers bisexual, or mixed male and female in a single inflorescence 99
86. Flowers with a disk 87

- Flowers without a disk 92
87. Leaves with pellucid glands *RUTACEAE* (p.365) (and *Pappaea*) p.422
- Leaves without glands 88
88. Seashore species *Suriana* p.376
- Inland plants 89
89. Plants with sticky resin in most parts *Commiphora* p.381
- Resin not present 90
90. Inflorescence a panicle to 25cm long *ANACARDIACEAE* p.425
- Inflorescence < 10cm long 91
91. Leaves 5-7-nerved from the base, with dentate margins and leafy stipules *Trimeria* p.111
- Leaves different *EUPHORBIACEAE* p.179
92. Flowers female 93
- Flowers male 96
93. Style 1 94
- Styles 3 or more 95
94. Stipules present *Ilex* p.335
- Stipules absent *Apodytes* p.345
95. Carpels free *MENISPERMACEAE* p. 60
- Carpels united *FLACOURTIACEAE* p.102
96. Filaments/anthers 9-15 *FLACOURTIACEAE* p.102
- Filaments/anthers 8 or less 97
97. Stipules present *Ilex* p.335
- Stipules absent 98
98. Flowers 3-merous *MENISPERMACEAE* p. 60
- Flowers 5-merous *ICACINACEAE* p.345

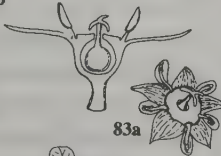
Diospyros (Ebenaceae) 70a



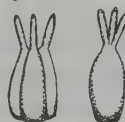
91a

94b
Apodytes98a
Tiliacora

Peddiea (Thym.)

76b
Cordia

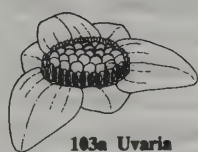
Ludwigia



95a 95b

99. Flowers zygomorphic (bilaterally symmetric) 100
 Flowers actinomorphic, radially symmetric 102
100. Stamens 10 *PAPILIONACEAE* p.278
 Stamens 8 or less 101
101. Stipules present *Hybanthus* p. 84
 Stipules absent *POLYGALACEAE* p. 86
102. Stamens 15 or more 103
 Stamens 10 or less 110
103. Ovary of 3 or more free carpels 104
 Ovary of fused carpels 105
104. Leaf margin entire; sepals 3 *ANNONACEAE* p. 43
 Leaf margin toothed; sepals 5 *DILLENIACEAE* p.100
105. Anthers opening by pores *OCHNACEAE* p.120
 Anthers opening by slits 106
106. Ovary stalked; sepals 3-4 *CAPPARACEAE* p. 67
 Ovary not (or hardly) stalked 107
107. Epicalyx present; filaments united in a tube *Hibiscus* p.171
 Epicalyx absent 108
108. Style topped by an undivided stigma 109
 Style topped by a stigma split in 3-5 *FLACOURTIACEAE* p.102
109. Leaf margin entire *CHRYSOBALANACEAE* p.230
 Leaf margin toothed *ROSACEAE* p.226
110. Sepals 2 *PORTULACACEAE* p. 87
 Sepals 3 or more 111
111. Stamens the same number as petals 112
 Stamens at least double the number of petals 122
112. Disk present 113
 Disk absent 118
113. Filaments partly united at the base; styles 2-3 *EUPHORBACEAE* p.179
 Filaments free 114
114. Filaments alternating with the petals; styles 2-4 115
 Filaments opposite the petals; style 1 116
115. Stipules persistent *Savia* p.222
 Stipules caducous or absent *CELASTRACEAE* p.335
116. Stipules present; leaf margin toothed *RHAMNACEAE* p.353
 Stipules absent; leaf margin toothed *Allophylus* p.412
 Stipules absent; leaf margin entire 117
117. Shrubs or trees *OLACACEAE* p.349
 Lianas or shrubs *OPILIACEAE* p.351
118. Anthers with triangular appendix at the apex *VIOLACEAE* p. 83
 Anthers without such an appendage 119
119. Stipules persistent *STERCULIACEAE* p.161
 Stipules caducous or absent 120
120. Stamens opposite the petals *Homalium* p.107
 Stamens alternate with the petals 121
121. Stigma simple *PITTOSPORACEAE* p.101
 Stigma divided in 2 or 3 *DICHAPETALACEAE* p.231

122. Disk present 123
 Disk absent 125
123. Styles 3-4 *ERYTHROXYLACEAE* p.177
 Style 1 124
124. Stamens free *OLACACEAE* p.349
 Stamens partly united *Turraea* p.407
125. Stamens opening by pores *OCHNACEAE* p.120
 Stamens opening by valves *LAURACEAE* p. 56
 Stamens opening by slits 126
126. Petals more than 2 cm long *Gigasiphon* p.243
 Petals smaller 127
127. Leaves dotted with glands; filaments in a tube *Warburgia* p.112
 Leaves not glandular 128
128. Style 1 *CONNARACEAE* p.433
 Styles 3-4 *MALPHIGIACEAE* p.174

103a *Uvaria*

105a



fruit



108b



118a



121b



125a



125b

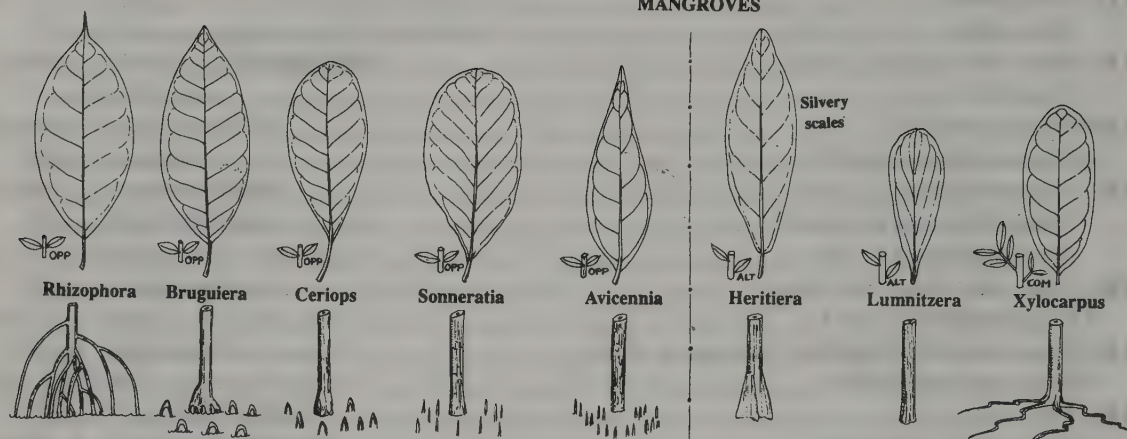


125c

GROUP 10 - opposite leaves

1. Mangroves with stilt- or breathing roots 11
 Not mangroves 2
2. Leaves whorled, with 3 or more leaves in each whorl 3
 Leaves opposite, strictly in pairs 15
3. Sticky latex present in many parts of the plant 4
 Sticky latex absent 6
4. Latex yellow; leaves with resin canals visible against the light *Garcinia* p.145
 Latex white; resin canals not visible 5
5. Leaves densely hairy *Ozoroa* p.428
 Leaves glabrous *APOCYNACEAE* p.473
6. Stipules interpetiolar; corolla tubular *RUBIACEAE* p.499
 Stipules absent or not between the petioles 7
7. Leaf margin serrate, with thread-like fimbriae *Impatiens* p. 91
 Leafbase serrate or not, but without fimbriae 8
8. Ovary inferior *OLINIACEAE* p. 94
 Ovary superior 9
9. Young branches often square; stamens 4, of 2 unequal pairs *VERBENACEAE* p.611
 Young branches round; stamens 2-5, equal 10
10. Stamens 2 *Jasminum* p.468
 Stamens 4-5 *Nuxia* p.463

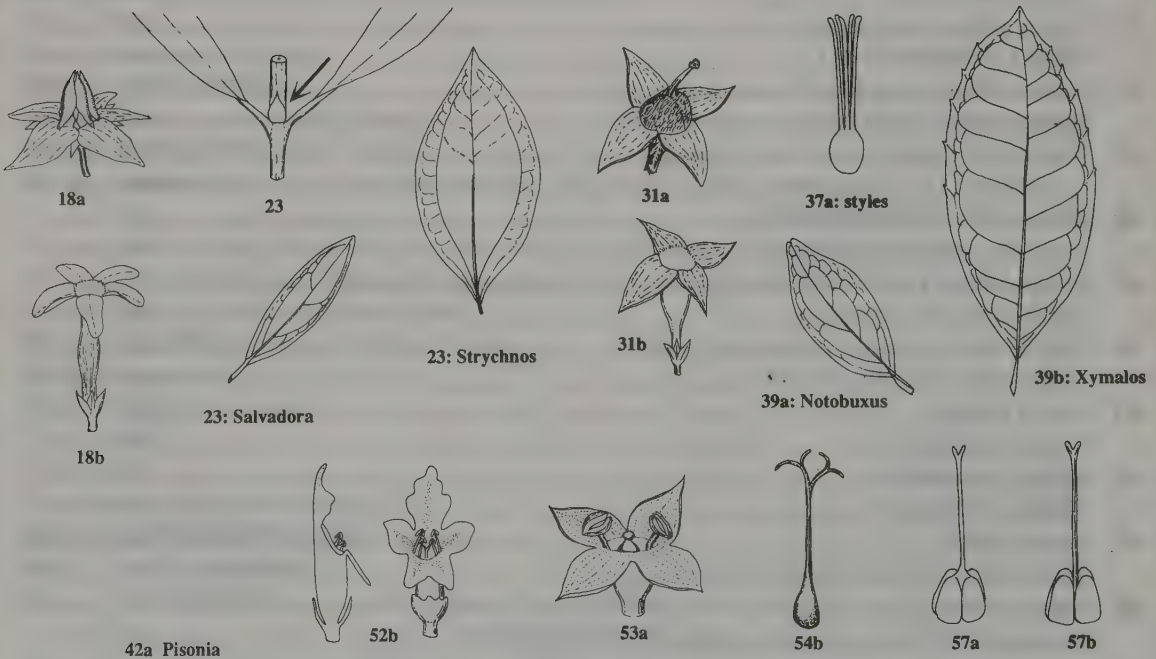
MANGROVES



11. Stilt or prop roots present (see also 4) *Rhizophora* p.145
 Finger or knee roots present 12
12. Knee roots present *Bruguiera* p.142
 Finger roots present 13
13. Both stilt and finger roots present *Ceriops* p.144
 Only finger roots present 14
14. Leaf apex rounded or emarginate; flowers white or pink; fruit obovoid *Sonneratia* p. 94
 Leaf apex acute or obtuse; flowers yellowish; fruit ovoid *Avicennia* p.611
15. Sticky latex present in branches, leaves and inflorescence 16
 Latex absent 19
16. Latex red, orange or yellow *GUTTIFERAE* p.145
 Latex white or colourless 17
17. Corolla without a tube; fruit 3-lobed *Excoecaria* p.207
 Corolla with a tube; fruit not 3-lobed 18
18. Corona present at the base of each corolla-lobe; pollinia connected by arms
 *ASCLEPIADACEAE* p.488
 Corona usually absent (except *Nerium*, *Strophanthus*); no connection of pollinia present...
 *APOCYNACEAE* p.473
19. Leaves with interpetiolar stipules or -lines 20
 Leaves without interpetiolar stipules or lines 24
20. Petals free 21
 Petals connate into a tube 22
21. Stamens 8-45 *Cassipourea* p.142
 Stamens 5 *Lasiodiscus* p.356
22. Leaf margin crenate, stem square *Hoslundia* p.627
 Leaf margin entire, stem round 23
23. The large *RUBIACEAE* family p.499
 *Strychnos* (often with the leaves 3-veined from the base) p.464
 *Woodfordia* (with a tube 5 x as long as the lobes) p. 93
 *Salvadora* (with tiny flowers, a 1-locular ovary, and a drupe as fruit; Mswaki) p.349
24. Leaves lobed 25
 Leaves not lobed 27

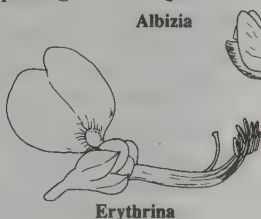
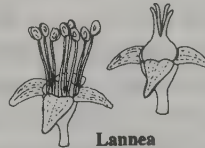
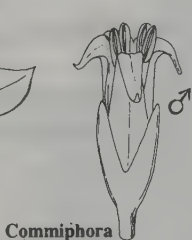
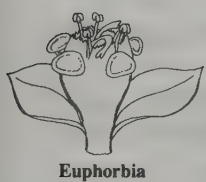
25. Leaves pinnatisect *Bidens* p.554
 Leaves 3-5-lobed 26
26. Leaves densely hairy *Tithonia* p.564
 Leaves glabrous *Buttonia* p.589
27. Leaves long and narrow (3-15 by 0.3-1.2cm) with veins parallel to midrib *Podocarpus* p. 42
 Leaves with veins at an angle with midrib 28
28. Leaves dotted with glands; branches round 29
 Leaves not gland-dotted; OR branches square (Verbenac., Labiat.) 30
29. Ovary inferior; stamens many *MYRTACEAE* p.125
 Ovary superior; stamens 5, with 5 staminodes *RUTACEAE* p.365
30. Plants epiphytic; corolla with a tube *LORANTHACEAE* p.352
 Plants not epiphytic; flowers in dense heads surrounded by bracts *COMPOSITAE* p.552
 Plants not epiphytic; flowers free from each other 31
31. Corolla with (nearly) free petals 32
 Corolla with a tube 52
32. Flowers dioecious 33
 Flowers bisexual or monoecious 35
33. Petals and sepals present 34
 Only one set of tepals present; star hairs present *Mallotus* p.213
34. Coastal plants; leaf apex acuminate *Grevea* p.226
 Inland plants; leaf apex acute or rounded *Ilex* p.335
35. Stamens 2 *OLEACEAE* p.467
 Stamens 3 or more 36
36. Stamens 3 *CELASTRACEAE* p.335
 Stamens 4 or more 37
37. Styles several per flower 38
 Style 1 per flower 40
38. Stamens many; sepals and petals present *GUTTIFERAE* p.145
 Stamens 6-15; only one set of tepals present 39
39. Stamens 6; carpels united into 1 ovary *BUXACEAE* p.314
 Stamens 10-15; carpels free *Xymalos* p. 55
40. Both sepals and petals present 43
 Only one set of tepals present 41
41. Inflorescence a spike with many bracts; woody climber from Western Kenya *Sericostachys* p. 91
 Inflorescence not bracteate 42
42. Sepals on top of calyx tube; coastal species *Pisonia* p. 98
 Sepals free; Kakamega species *Boehmeria* p.333
43. Ovary inferior 44
 Ovary superior 48
44. Stipules present 45
 Stipules absent 46
45. Stamens 8-45 *RHIZOPHORACEAE* p.142
 Stamens 5 *RHAMNACEAE* p.353
46. Stamens 4-5 *OLINIACEAE* p. 94
 Stamens 8-10 47
47. Leaves often 3-veined from the base; branches often square in section *MELASTOMATACEAE* p.128
 Leaves not 3-veined from base, but often scaly; branches round *COMBRETACEAE* p.129

48. Calyx tubular in lower part49
 Calyx not tubular50
49. Ovules many per carpel*LYTHRACEAE* p. 92
 Ovules 1 per carpel*THYMELEACEAE* p. 95
50. Filaments opposite the petals*RHAMNACEAE* p.353
 Filaments alternating with the petals51
51. Sepals and petals 4-5*CELASTRACEAE* p.335
 Sepals 2-4, petals 4*SALVADORACEAE* p.347
52. Flowers actinomorphic, radially symmetric53
 Flowers zygomorphic, bilaterally symmetric55
53. Stamens 2*OLEACEAE* p.467
 Stamens 4-554
54. Style simple*LOGANIACEAE* p.461
 Style twice divided*BORAGINACEAE* p.571
55. Calyx absent*CYCLOCHEILACEAE* p.624
 Calyx present56
56. Branches often square; ovary 4-lobed57
 Branches round; ovary not 4-lobed58
57. Ovules 2 per locule; style terminal*VERBENACEAE* p.611
 Ovule 1 per locule; style often from the base of the ovary*LABIATAE* p.624
58. Disk absent*SCROPHULARIACEAE* p.588
 Disk present*ACANTHACEAE* p.594



GROUP 11 - plants flowering when leafless

1. Petals absent, or present and more or less free from each other 2
 - Petals forming a distinct tube and lobes 27
2. Plant succulent, or with enormous succulent tuber 3
 - Plant not succulent 5
3. Whole plant succulent 4
 - One or several stems growing from large succulent tuber *Pyrenacantha* p.346
4. Branches with tendrils *Cissus* p.361
 - Tendrils absent *Euphorbia* p.197
5. Plants spiny 6
 - Plant without spines 8
6. Spines single, terminating the branches; plants with sticky resin in branches *Commiphora* p.381
 - Spines in pairs or threes, studding the branches 7
7. Flowers in dense round or cylindrical heads *Acacia* p.252
 - Flowers in lax panicles, brilliant red *Combretum* p.130
8. Flowers irregular, with a left and a right side *PAPILIONACEAE* p.278
 - Flowers radially symmetric, or only slightly irregular 9
9. Flowers in dense heads *Albizia* p.269
 - Flowers not very close together 10
10. Flowers unisexual 11
 - Flowers bisexual 16
11. Flowers female 12
 - Flowers male 14
12. Styles 2-4 13
 - Style 1; star hairs present *Sterculia* p.166
 - Style 1; star hairs absent *Commiphora* p.381
13. Petals absent *Erythrococca* p.195
 - Petals present; star hairs often present *Lannea* p.426
14. Stamens 10-40 *Erythrococca* p.195
 - Stamens 6-10 15



- | | | | |
|-----|--|------------------------|-------|
| 15. | Star hairs present; stamens 8 | <i>Lannea</i> | p.426 |
| | Star hairs present; stamens many, on a common stalk | <i>Sterculia</i> | p.166 |
| | Star hairs absent; stamens 6-10 | <i>Commiphora</i> | p.381 |
| 16. | Stamens many | 17 | |
| | Stamens 10 or less | 19 | |
| 17. | Carpels free | <i>Monodora</i> | p. 49 |
| | Carpels united | 18 | |
| 18. | Flowers less than 2 cm across | <i>Grewia</i> | p.150 |
| | Flowers over 5cm across | <i>Adansonia</i> | p.168 |
| 19. | Ovary on a stalk more than 10mm long | <i>Maerua</i> | p. 75 |
| | Ovary not obviously stalked | 20 | |
| 20. | Stamens opening by pores | <i>OCHNACEAE</i> | p.120 |
| | Stamens opening by slits | 21 | |
| 21. | Ovary inferior, hidden in calyx tube | <i>COMBRETACEAE</i> | p.129 |
| | Ovary superior | 22 | |
| 22. | Stamens 4-6 (in <i>Moringa</i> also with 5 staminodes present) | 23 | |
| | Stamens 8-10 | 25 | |
| 23. | Sepals 2, petals 5 | <i>PORTULACACEAE</i> | p. 87 |
| | Sepals 4-6; petals 4-6, or absent | 24 | |
| 24. | Star hairs present; flowers pink or white; widespread | <i>Dombeya</i> | p.163 |
| | Star hairs absent; not very common | <i>Moringa</i> | p. 81 |
| 25. | Styles and carpels free | <i>CONNARACEAE</i> | p.433 |
| | Style 1; carpels connate | 26 | |
| 26. | Stamens 8 | <i>Haplocoelum</i> | p.418 |
| | Stamens 10 | <i>CAESALPINIACEAE</i> | p.234 |
| 27. | Corolla radially symmetric | 28 | |
| | Corolla bilaterally symmetric | 30 | |
| 28. | Corolla lobes separate from each other | 29 | |
| | Corolla salver-shaped, with no opening between the lobes | <i>Ipomoea</i> | p.585 |
| 29. | Corolla lobes tailed | <i>Strophanthus</i> | p.485 |
| | Corolla lobes not tailed | <i>RUBIACEAE</i> | p.499 |
| 30. | Plants spiny, flower with a spur | <i>Sesamothamnus</i> | p.593 |
| | Plants not spiny; spur absent | 31 | |
| 31. | Flowers red or pink, over 3cm long | <i>BIGNONIACEAE</i> | p.590 |
| | Flowers smaller | 32 | |
| 32. | Flowers 5-lobed | <i>Clerodendrum</i> | p.611 |
| | Flowers 2-lipped | <i>LABIATAE</i> | p.624 |

PTERIDOPHYTA

FERNS. Differing from the Mono- and Dicotyledons in having no sexual organs; these are restricted to tiny gametophytes. The sporangia on the lower side of the fern-leaf produce spores, which are distributed by wind or water and produce the gametophytes. These, in their turn, produce the fruit which gives rise to the ferns as we know them.

CYATHEACEAE

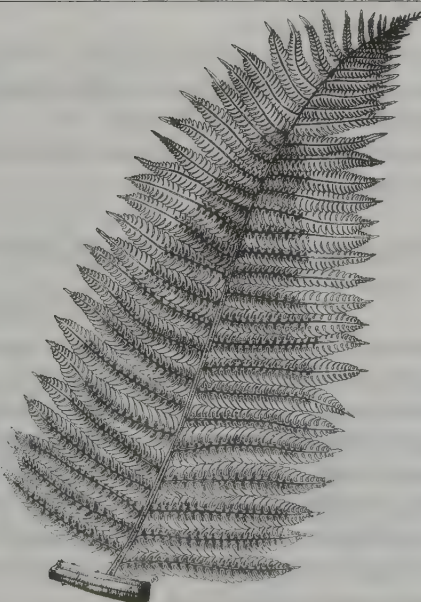
1. CYATHEA (Tree ferns)

Trunks covered by small adventitious roots and old petiole-bases. Leaves born at apex of trunk, pinnate to tri-pinnate. Sori on the veins.

- | | |
|--|------------------------------|
| 1. Leaves pinnate (once), up to 1.5m long | |
| | 2. <i>C. humilis</i> |
| * Leaves bipinnate, 2-3.5m long | 2 |
| 2. Petiole base not spiny; midveins of pinnae (leaflets) hairy above | 3. <i>C. manniana</i> |
| * Petiole base not spiny; midveins of pinnae (almost) glabrous above | 1. <i>C. dregei</i> |

1. *Cyathea dregei* Kunze

Reported from Nyambeni Hills and Taita Hills, but this probably refers to *C. manniana*; R. Schippers (pers.)



Cyathea spp.

comm.) informs me that this species does not occur in Kenya. I have not seen any material.

2. *Cyathea humilis* Hieron.

(*C. stuhlmannii* Hieron.)

Trunk 0.5-2m high. Petiole bases not persistent. Petiole 2-30cm long. Leaf-lamina to 1.5m long; largest pinnae 12-15cm long.

K47; 1350-1950m; IV, VI *

Moist evergreen forest, in valleys or swampy sites: Mt. Kenya and Taita Hills.

3. *Cyathea manniana* Hook.

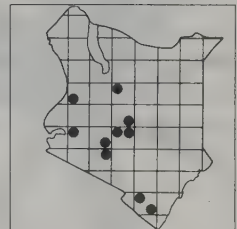
Trunk 0.5-10m high. Petiole to 40cm long. Petiole bases with spines to 4mm long. Leaves 2-3.5m long; largest pinnae 75cm long; pinnules to 13 by 2cm.

K1234567; 1350-2500m; II-III, V-VII, XI-XII

Moist evergreen forest along streams and in valleys; less often in more open forest remnants.

Rusirusiru (KIK), Biriruo cheret (KIP).

Cyathea manniana



GYMNOSPERMAE

CYCADACEAE

1. CYCAS

Leaves pinnate with linear, entire leaflets, becoming spiny towards the base of the petiole. Dioecious. Female inflorescence of flat blades around the stem apex, bearing marginal ovules.

***Cycas thouarsii* Gaud.**

Tree 3-10m, palm-like; trunk covered with woody leaf-bases and (about 6 by 3cm large) scale leaves. Leaves 1.5-3.5m long, petiolate; leaflets linear, slightly curved, narrowing towards the base, apex attenuate, margin somewhat inrolled, to 32 by 1.2cm, but smaller in leaflets near apex or base of leaf. Male cones cylindrical, 30-60 by 8.5-20cm, with scales to 5cm

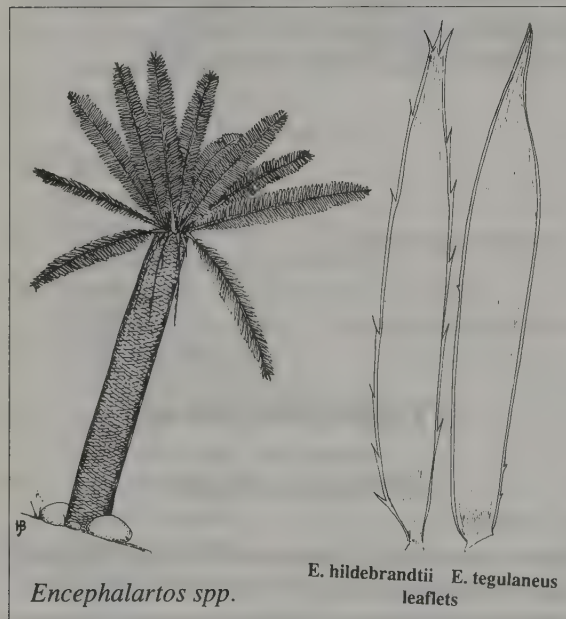
long; female inflorescence of 15-34 by 1.5-3cm fronds bearing erect ovules on the margin, crowded around the stem apex. Seeds sessile, red, 4.5-6 by 4-6cm, glabrous.

K7, just above high tide mark or just inland; III, V, VIII*
Only known wild from Kaya Kinondo, although there are several cultivated specimens.

ZAMIACEAE

ENCEPHALARTOS

Almost non-branched shrubs or trees; trunks covered with leaf scars. Leaves pinnate. Leaflets linear to ovate with many parallel veins, spine-toothed, the lowermost reduced to spines. Dioecious. Male cones pedunculate, 1 to several, with the scales truncate at the apex. Female cones (sub)sessile with apically truncate scales. Seeds large, with fleshy outer layer.



1. Leaf apex with 3 spiny lobes or teeth
2. *E. hildebrandtii*
- * Leaf apex acute or acuminate 2
2. Median leaflets 1-2cm wide 1. *E. bubalinus*
- * Median leaflets more than 2cm wide 3
3. Median leaflets on the upper margin with 1-2 teeth 5. *E. tegulaneus*
- * Median leaflets on the upper margin with (2) 3-5 teeth 4

4. Median leaflets on the lower margin with 1-2 teeth; male cones with spreading scale

3. *E. kisambo*

- * Median leaflets on the lower margin with 2-5 teeth; male cones with deflexed scales

4. *E. powysorum*

1. *Encephalartos bubalinus* Melville

VULNERABLE

Trunk to 1.4m. Leaves to 1.65m, obovate; median leaflets linear, leathery, apex spinose-acuminate, upper margin with 2-4 teeth near the base, 10-20 by 1-2cm. Male cones ellipsoid or subcylindrical, 11-23 by 5.5-6cm, pedunculate; female cones not seen.

K6; 1500-1800m; X*

Rocky outcrops in bushland in Nguruman/Loita Hills area.

2. *Encephalartos hildebrandtii* A.Br. & Bouché var. *hildebrandtii*

Trunk to 6m. Leaves 1.5-3m long, white-woolly when young; median leaflets linear, leathery, apex spiny, margins each with 1-9 spiny teeth, often near the base, 15-35 by 1.3-4.5cm. Male cones dull red, cylindrical or fusiform, 20-50 by 5-9cm, on a 5-25cm long peduncle; female cones dull yellow, cylindrical, 28-60 by 15-25cm. Seeds red, ovoid, 3cm long.

K7; 1-500m; III-IV, XI-XII*.

Evergreen coastal bushland, *Brachystegia* woodland, dry coastal forest.

Mkwanga, Msapo (SWA), Tielle (BON), Muka, Balacha (SAN). Seed eaten in times of hardship, but now known to cause liver cancer.

Note: a population on Kilibasi does not show the lobed or toothed apex.

3. *Encephalartos kisambo* Faden & Beentje (*E. voiensis* Sclavo & Moretti)

VULNERABLE

Trunk to 1.3m, occasionally branched. Leaves to 2.7 by 0.6m; median leaflets linear, leathery, apex spinose-acute, margin reflexed with 3-4 teeth on the upper side near the base and occasionally with 1-2 teeth on the lower side about halfway, to 30 by 2.2-3.5cm. Male cones cylindrical, 25-52 by 5-6.5(+)cm on a peduncle to 21cm long; female cones cylindrical, 30-45 by 6-8(+)cm. Seeds reddish, ovoid, somewhat compressed, to 4 by 2.3cm.

K7; 700-1000m;*

Moist low-canopy evergreen forest, locally common; also in drier bushland; Maungu Hills and Kasigau. Kisambo (TAI).

4. *Encephalartos powysorum* Beentje ined.

VULNERABLE

Tree to 8 m. Leaves 2-3.6 m long; median leaflets linear, leathery, apex spiny, margin revolute with 2-5 spines on the upper side and 2-5 spiny teeth on the lower side, 23-27 by 2-3.3 cm. Male cones cylindrical, 40-52 by 12 cm, on a peduncle 12-18 cm long; female cones cylindrical, 42 by 10 cm, (sub)sessile. Seeds ovoid, 2.8-3.6 by 1.7-2.2 cm.

K4; 1200-1400m; -*

Dry forest; endemic to a hill in southern Meru district.

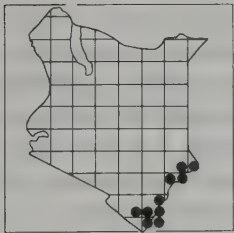
5. *Encephalartos tegulaneus* Melville RARE

Trunk to 7m. Leaves 1.2-1.8m long; median leaflets linear, leathery, apex acute, margin reflexed and entire or with 1-2 teeth on the upper side near the base, 16-22 by 2-3cm. Male cones subcylindrical, to 40 by 13cm, on a peduncle up to 20cm long. Female cones cylindrical, to 40 by 19cm. Seed ovoid, to 3.5cm.

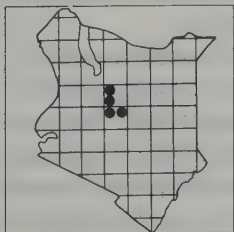
K1; 1800-2100m; V*

Bushland on steep slopes, dry upland forest near springs.

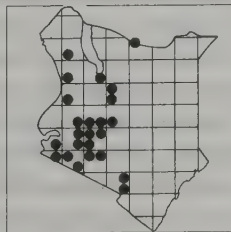
Lpision (SAM).



E. hildebrandtii



E. tegulaneus



Juniperus procera

CUPRESSACEAE

Trees or shrubs. Leaves on adult plants scale-like and appressed, on juvenile plants needle-like and spreading. Cones terminal, often on short branchlets.

1. JUNIPERUS

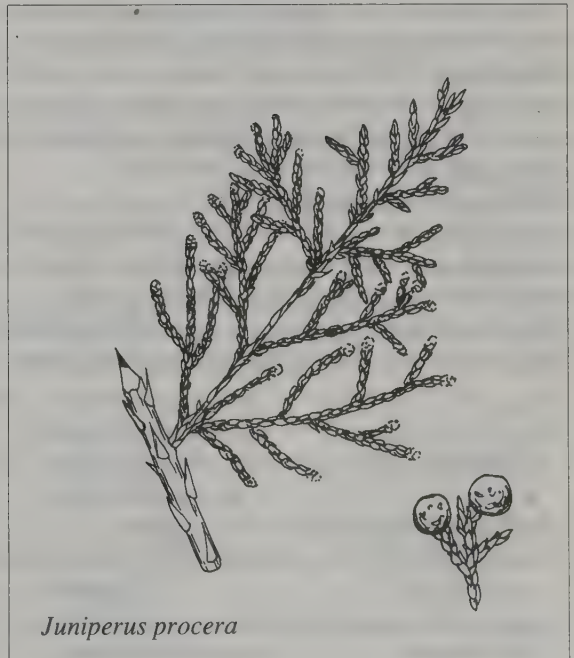
***Juniperus procera* Endl.**

Tree to 40m; crown pyramidal in youth, later spreading; bark pale brown, cracking and peeling in long narrow strips. Juvenile leaves in 3's, linear, spine-tipped, to 12 by 1mm; adult branchlets with opposite scale leaves, very closely set, acute at apex, less than 1mm long. Cones dioecous; male cones yellowish, ellipsoid, 2-3mm long, with about 10 scales; female cones redbrown, subglobose, with about 6-8 scales. Ripe fruit waxy blue-grey, berry-like, globose, to 8mm across, with 1-4 seeds.

K123456; 1050-2950m; II, IV, IX, XII*

Drier upland forests, associated with *Podocarpus*, *Olea* or *Croton* or forming pure stands, between 1800-2950m; also as scattered individuals on rocky hills or mountains, on shallow rocky soils or ridge crests.

Pencil Cedar; Aru (BOR), Arru (GAB), Ndalakwa, Mukuu (KAM), (Mu) tarakwa, tarakwa (KIK, SAM), Tarakwet (KIP, MAR, NAN), Oltarakwa (MAA), Murana (MER), Tarakit (POK), Tarokwa, Torokwa



Juniperus procera

(POK, TUG), Hal (REN), Torokio (SEB), Eminent (TUR), Teet (WAN). An important timber tree, used for building houses, for poles, for furniture; bark used for beehives.

PODOCARPACEAE

Evergreen trees with (sub) linear leaves, spirally arranged or opposite. Cones dioecious; male cones axillary, catkin-like; female cones terminal on short branchlets, small.

1. PODOCARPUS

1. Leaves large, 6-16 by 0.5-1.2cm; fruit receptacle swollen **2. *P. latifolius***

* Leaves smaller, in mature trees to 5x0.4cm; fruit receptacle not swollen **2**

2. Leaf apex gradually narrowing; seed-shell 1-2mm thick **1. *P. falcatus***

* Leaf apex rather abruptly acute; seed-shell 2-8mm thick **3. *P. usambarensis***

1. *Podocarpus falcatus* Mirb.

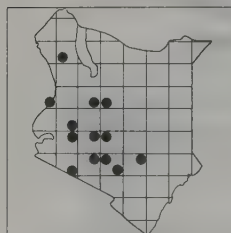
(*P. gracilior* Pilger)

Tree to 36m, evergreen, trunk to 2m across; bark pale grey or brown, flaking in long irregular rectangles. Leaves on the ends of branchlets only, linear, base cuneate, apex acute, gradually tapered, 2-4 by 0.2-0.4cm in mature trees, up to 18 by 1.6cm in juvenile trees, with stomata on both surfaces. Male cones 1-3, yellowbrown, 10-23mm long; female cones single, green to grey- or yellowgreen, later purple. Seed at maturity ("fruit") ellipsoid or globose, 14-23 by 11-21mm, with a woody shell of 1-2mm thick.

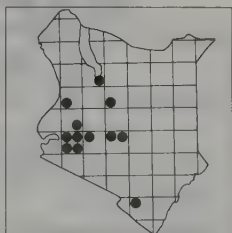
K12346; 1250-2700m; II, IV-VIII *

Upland forest, in drier forests than *P. latifolius*; often associated with *Juniperus*; often riverine. Can be locally dominant, or may even form pure stands.

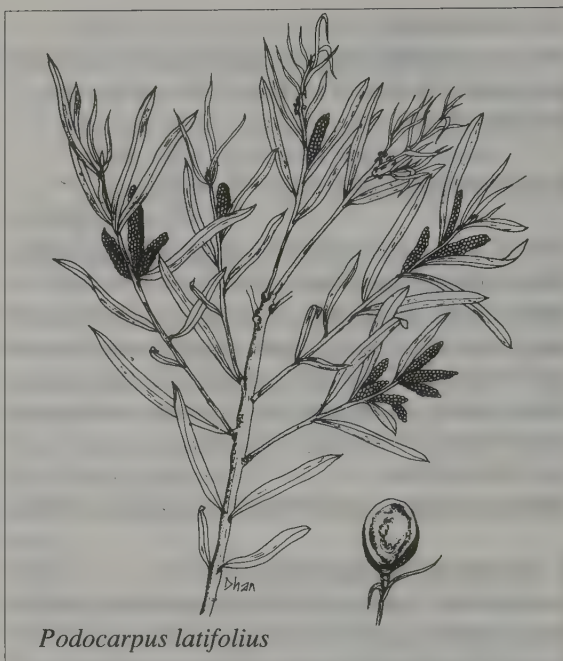
Podo, East African yellowwood; Benet (ELG, MAR, TUG), Muvengea (KAM), Muthengera (KIK), Saptet



P. falcatus



P. latifolius



(KIP, SEB), Olbiribiri (MAA), Mubiribiri (MER), Dibiribiri (SAM, SOM), Lotimat (TUR). Timber used as general utility softwood.

2. *Podocarpus latifolius* (Thunb.) Mirb.

(*P. milanjanus* Rendle)

Tree 5-25 (+)m, evergreen; bark pale brown or dark brown, peeling in long narrow strips. Leaves aromatic, linear, base cuneate, apex acute, gradually tapered, (2)6-15 by 0.5-1.2cm, stomata only on lower surface. Male cones 1-2, pinkish, 1.5-5cm long; female cones solitary; seed (fruit) (sub)globose, 6-12mm across, on a red fleshy swollen receptacle.

K1234567; 1500-3350m; I, III, V, VIII, X*

Upland forest, in wetter zones; often forming almost pure stands above 2600m, also associated with bamboo, *Hagenia*, *Ocotea*, *Juniperus* and *Olea*.

Podo, East African Yellowwood; Muthengera (KIK), Saptet (KIP, NAN), Sadbet (LUM), Olpiripiri (MAA), Sosaita, Serti (MAR), Mubiribiri (MER), Biribiriti (SAM), Sitatet (SEB), Biribiriti (SOM), Msembangala (TAI), Septa (TUG). A good timber tree. Maasai use a bark decoction as a remedy against stomach ache.

3. *Podocarpus usambarensis* Pilgervar. *usambarensis*

Tree to 14(30)m, evergreen; bark dark brown, flaking in rectangular or irregular scales. Leaves linear, base cuneate, apex abruptly acute, 1-7.5 by 0.2-0.5cm in mature trees, up to 13 by 0.8cm in juveniles. Male cones yellow, 4-26mm long; female cones solitary. Seed ('fruit') green to yellow green, subglobular or sometimes ellipsoid, 19-35 by 16-30mm with a 2-8mm thick woody shell.

K6; 1650-1900m; -*

Isolated evergreen forest patches on Ngulia, Taita Hills and possibly on the Chyulus (Gillett & Kariuki 18842, sterile).

Museneka (TAI).

NOTE: Several collections from the North end of Ngangao forest (Taita Hills) show mature branches with leaves as small as 4 by 0.5cm. Young branches bear leaves to 10 by 1.2cm. These collections (Taita Hills Expedition 388, Bally 13623, Faden & Githui 70/727) are all sterile. Fertile material is needed to decide on the identity. It does not resemble *P. usambarensis* or *P. falcatus* very much; it could be a very small-leaved form of *P. latifolius* as reported from rocky sites in Flora Zambesiaca 1,1: 86.

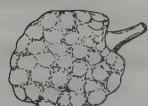
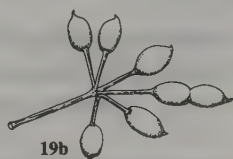
SPERMATOPHYTA DICOTYLEDONES

8. ANNONACEAE

Leaves alternate, without stipules. Sepals 2-3; petals (4) 6, in one or two whorls; stamens many. Fruit either syncarpous or consisting of many free "monocarps" (see illustration of key-lead 19).

1. Inflorescences on hook-like peduncles (which remain on older wood) **2. *Artabotrys***
- * Inflorescences not on hook-like peduncles **2**
2. Leaves with stellate (star) hairs **14. *Uvaria***
- * Leaves glabrous or with simple hairs **3**
3. Plant in flower (unknown for *Lettowianthus*) **4**
- * Plant in fruit **19**
4. Sepals 2; petals 4; Kakamega forest **16. *Uvariopsis***
- * Sepals 3; petals 3 or 6 **5**
5. Outer petals with very wavy margins, 37-105mm long, and much longer than inner petals **9. *Monodora***
- * Outer petals with straight margins, or all petals equal **6**
6. Outer petals at least 3 times as long as wide **7**
- * Outer petals at most 2 times as long as wide **10**
7. Outer petals 2-3.5mm wide **17. *Xylopia***
- * Outer petals 5-15mm wide **8**
8. Petals 20-24mm long, reddish bronze **5. *Isolona***
- * Petals 25-75mm long **9**
9. Petals pale yellow; flowers 2-6 together **4. *Cananga***
- * Petals white, red and yellow; flowers single or in pairs **3. *Asteranthe***
10. Calyx with stellate hairs **14. *Uvaria***
- * Calyx glabrous or with simple hairs **11**
11. Petals 3.5-5.5 by 8-10mm; Sepals 6-9mm **34**
- * Sepals smaller than petals **12**
12. Sepals 8-13mm long **13**
- * Sepals 0.5-6mm long **14**
13. Sepals longer than wide **14. *Uvaria welwitschii***
- * Sepals 10 by 20mm **15. *Uvariadendron gorgonis***
14. Leaves velvety beneath; ovary of many united carpels **1. *Annona***
- * Leaves glabrous to sparsely pubescent beneath; ovary of free carpels **15**

- | | | | |
|---|--------------------------|--|--------------------------|
| 15. Petals 15-35 by 10-23mm | 16 | 28. Seeds flattened and pitted | 4. <i>Cananga</i> |
| * Petals 2.5-17 by 5-9mm | 17 | * Seeds round or ovoid and smooth | 29 |
| 16. Petiole 1-2mm long; flowers extra-axillary, among the leaves | 7. <i>Mkilua</i> | 29. Monocarps densely velvety | 3. <i>Asteranthe</i> |
| * Petiole 3-8mm long; flowers either axillary or on old wood | 15. <i>Uvariodenron</i> | * Monocarps glabrous or hairy, but not velvety | 30 |
| 17. Stamens 6-36, separate so anther-cells are visible | 8. <i>Monanthotaxis</i> | 30. Fruit red when mature | 31 |
| * Stamens many, the appendages forming a continuous surface hiding the anther-cells | 18 | * Fruit purple when mature | 6. <i>Lettowianthus</i> |
| 18. Outer petals larger than inner ones (Shimba Hills) | 12. <i>Sphaerocoryne</i> | * Fruit yellow, orange or blue when mature | 33 |
| * All petals the same size | 11. <i>Polyalthia</i> | 31. Monocarps 11-18mm wide; Kakamega | 16. <i>Uvariopsis</i> |
| 19. Fruits syncarpous (consisting of fused carpels) | 20 | * Monocarps 6-11mm wide | 32 |
| * Fruits composed of free monocarps | 22 | 32. Monocarps 10-37mm long | 17. <i>Xylopia</i> |
| | | * Monocarps 45-50mm long | 7. <i>Mkilua</i> |
| | | 33. Monocarps either 50-60 in number or 13-20mm wide | 15. <i>Uvariadendron</i> |
| | | * Monocarps 8-13 in number, 6-11mm wide | 14. <i>Uvaria</i> |


19a *Annona*


19b

- | | |
|---|-------------------------|
| 34. Leaves very closely reticulate; stems black | 13. <i>Toussaintia</i> |
| * Leaves loosely reticulate; stems grey-brown | 10. <i>Ophrypetalum</i> |

1. ANNONA

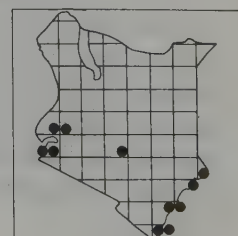
Annona senegalensis Pers. ssp. *senegalensis*
(*A. chrysophylla* Boj.)

Shrub or tree 2-8m; bark pale grey. Leaves ovate or elliptic, base rounded or cordate (cuneate), apex obtuse or apiculate, 5-18 by 3.5-14cm, velvety beneath. Flowers creamy yellow, extra-axillary in fascicles of 1-4; (outer) petals 8-12mm long. Fruit yellow to red, ovoid or round, 2.5-5 by 2.5-4cm, syncarpous.

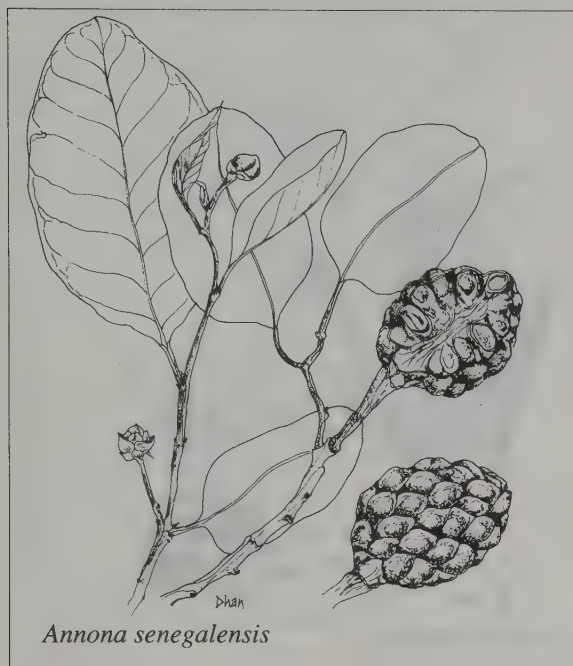
K457; 1-1750m; II, IV-V, XI-XII *

Wooded or bushed grassland, (riverine) woodland, secondary (fire-induced) bushland, on the coast also in evergreen forest.

Wild custard apple, wild soursop; Mtokomo-mwitu (SWA), Mlamote (BON), Mbokwe (DIG), Mutakuma (GIR), Makulo (KAM), Kumufwora, Muvulu (LUH), Nyabolo (LUO). Fruit edible; a root decoction is used against stomach upsets. A dye is obtained from the bark.


Annona senegalensis

- | | |
|--|-------------------------------|
| 20. Fruit yellow or orange | 1. <i>Annona</i> |
| * Fruit green and white, brown, or black | 21 |
| 21. Fruits on branches among leaf litter of forest floor, or on low branches | 5. <i>Isolona</i> |
| * Fruits on aerial branches | 9. <i>Monodora</i> |
| 22. Fruits, or leaf petioles, with stellate hairs | 14. <i>Uvaria</i> |
| * Fruits and leaf petioles with simple hairs or glabrous | 23 |
| 23. Fruit monocarps ribbed | 34 |
| * Fruit monocarps either smaller or without ribs | 24 |
| 24. Seeds straight, in axis of fruit | 25 |
| * Seeds oblique in fruit (if in doubt try both leads) | 28 |
| 25. Seeds with papery aril | 17. <i>Xylopia aethiopica</i> |
| * Seeds without aril | 26 |
| 26. Monocarps 16-18 in number, 9-10mm long | 11. <i>Polyalthia</i> |
| * Monocarps less than 13 in number, or more than 13mm long | 27 |
| 27. Monocarp stalks 5-14mm long; monocarps 13-20mm long | 12. <i>Sphaerocoryne</i> |
| * Monocarp stalks 1-6mm long or monocarps less than 10mm long | 8. <i>Monanthotaxis</i> |



2. ARTABOTRYS

Climbers with the inflorescence on extra-axillary, hooked peduncles. Fruit with many free, 1-2-seeded monocarps.

1. Petals 3-9mm long; fruit pubescent; Western Kenya
* Coast species, with glabrous fruit
1. *A. likimensis*
2. Petals 15-30mm long; stem (red) brown
2. *A. modestus*
- * Petals 4-12 mm long; stem blackish purple
3. *A. monteiroae*

1. *Artabotrys likimensis* De Wild.

(*A. nitidus* of KTS)

Liana (to 30m?). Leaves elliptic, base rounded or cuneate, apex (sub)acute to slightly acuminate, 4-20 by 2-7cm, with sparse reddish hairs beneath (occasionally only on venation). Flowers white, yellow, rose or red, 3-many in dense clusters; petals 3-9mm long. Fruit monocarps red, ellipsoid, 12-19mm long, reddish-pubescent.

K35; 1500-1800m; - *

Rain forest (Kakamega & Nandi).

Lusolokho, Ikoyi (LUH).

2. *Artabotrys modestus* Diels ssp. *macranthus* Verdc. Liana 1.8-4m. Leaves elliptic to slightly obovate, base cuneate to rounded (subcordate), apex acuminate, 4-17 by 2-6cm, glabrous or sparsely pilose. Flowers cream or yellowish (occasionally tinged with purple), solitary; petals 15-30mm long. Fruit monocarps red, ellipsoid, 13-17mm long, glabrous.

K7; 1-450m; I, V-VI, XI *

Forest or *Brachystegia* woodland.

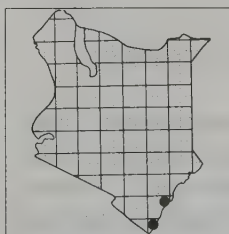
Note: Magogo & Glover 443 has 2 flowers per inflorescence, but otherwise is like this species.

3. *Artabotrys monteiroae* Oliv.

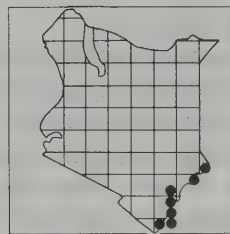
Liana to 6m. Very much like *A. likimensis*, but with glabrous fruits and (almost) glabrous leaves.

K7; 1-300m; - *

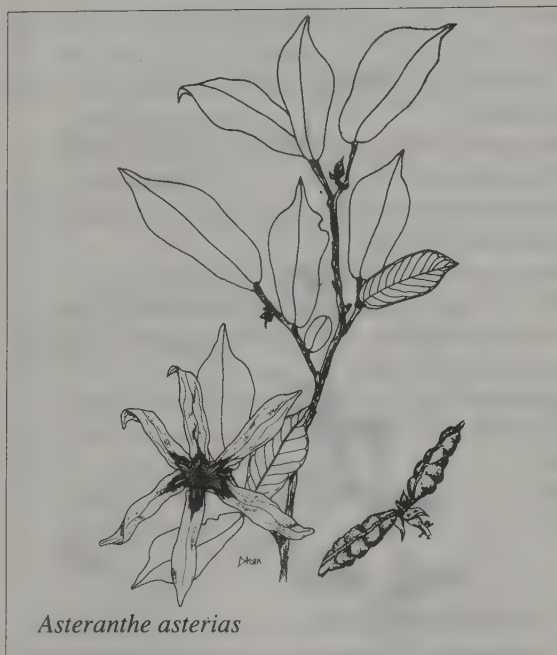
Found at Dzombo Mt. and at Witu.



Artabotrys modestus



Asteranthe asterias



3. ASTERANTHE

Fruits with many monocarps, each 3-10-seeded.

Asteranthe asterias (S. Moore) Engl. & Diels
ssp. *asterias* map p. 45

Shrub or tree 1.5-8m, evergreen. Leaves obovate, base rounded to subcordate, apex acuminate, 4-18 by 2-6cm, densely hairy beneath when young, but becoming glabrous. Flowers white, with red-purple and yellow near the centre, extra-axillary, 1-2 together, pendulous; petals 2.5-6cm long. Fruit monocarps oblong, 2-4 by 0.8-1cm, velvety.

K7; 1-500m; I, III-IV, XI-XII

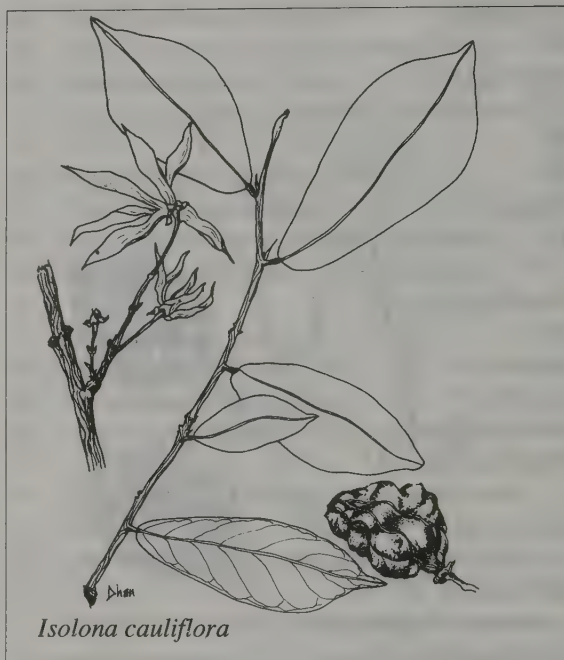
Forest, *Brachystegia* woodland, dense bushland.

Mkilua-mwitu, Nguga (SWA), Mgagini, Mbarimkut (BON), Mchere, Mjondohera-nguruwe (GIR). Used for building poles.

4. CANANGA

Cananga odorata (Lam.) Hook.f. & Thoms.
(*Uvariastrum* sp. of KTS)

Tree 6-18m, evergreen. Leaves ovate or elliptic, base cuneate, rounded or truncate, apex acuminate, 10-21 by 4-10cm, pubescent on venation only. Flowers greenish to pale yellow, in 2-6 flowered racemes; petals 5-7.5cm long. Fruit monocarps ellipsoid or



oblong, 1.5-2.3 by 1-1.5cm, glabrous.

K7; 1-450m; ? *

Cultivated as "ylang-ylang" for its sweetly scented flowers and gone wild in places along the coast.

5. ISOLONA

Isolona cauliflora Verdc. **VULNERABLE**

Shrub 3-8m, with the larger branches leaning over. Leaves slightly obovate, base cuneate or rounded, apex acuminate, 8-17 by 3-7cm, glabrous (except when young). Flowers reddish bronze, solitary on slender branches from the lower stems running in forest-floor leaf-litter; petals 2-3cm long. Fruit black, ellipsoid, 5 by 3.5cm, syncarpous.

K7; 1-500m; VII, IX; XII *

Forest (Shimba Hills, Gongoni, Muhaka, Mangea).

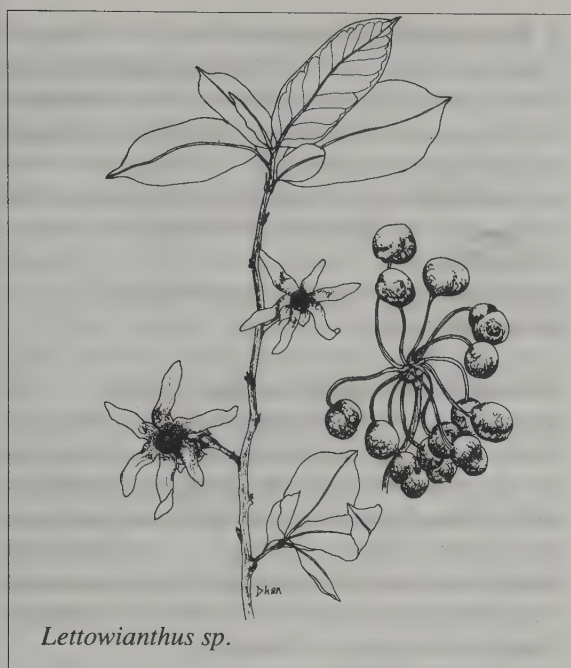
6. LETTOWIANTHUS

Lettowianthus sp.

Tree 4.5-20m; bark smooth, pale yellow-grey. Leaves obovate, base rounded, apex acuminate, 3-20 by 2.5-10cm, glabrous or nearly so. Flowers unknown, presumably on older wood. Fruit monocarps purple, ellipsoid, 1.8-2 by 1.5-1.8cm, glabrous.

K7; 1-400m; - *

Shimba Hills and Miongoni, in forest.



Note: this is probably *L. stellatus* Diels (see Luke in Utafiti 1,2: 69).

7. MKILUA

Mkilua fragrans Verdc.

(*Uvaria* sp. of KTS)

Shrub or tree 2.5-10 m. Leaves elliptic, base asymmetric and cuneate, apex obtuse to bluntly acuminate, 2-15 by 1-7 cm, glabrous except in young leaves. Flowers cream, yellow, or orange, with a purple patch at base, pendulous, in extra-axillary 1-3 flowered cymes; petals 2-3.5 cm long (outer) or 1.6-1.9 cm (inner). Fruit monocarps red, oblong, 4.5-5 by 0.6-1 cm.

K7; 1-450m; I-IV, VI-XII*

Evergreen forest.

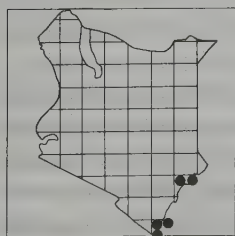
Mkilua, mlua (SWA), Kingade (DIG). Flowers used for their scent.



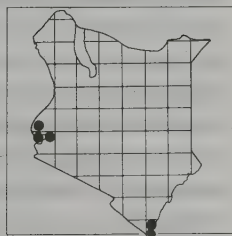
8. MONANTHOTAXIS

Flowers in extra-axillary cymes, or solitary. Fruit of monocarps, 1-8 seeded.

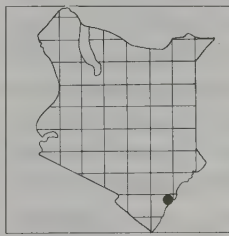
1. Plants of coastal strip (below 500m) 2
- * Inland plants (above 1000m) 5
2. Young branches with spreading reddish hairs 3
- * Young branches with appressed brown hairs
1. *M. buchananii*
3. Leaves more or less glabrous above 4
- * Leaves sparsely pubescent above, densely pellucid-punctate
2. *M. faulknerae*
4. Leafbase rounded or subcordate; inflorescence leaf-opposed
3. *M. fornicata*
- * Leafbase cordate; inflorescence extra-axillary
6. *M. trichocarpa*
5. Leaf apex obtuse to emarginate 6
- * Leaf apex acute to acuminate
5. *M. schweinfurthii*
6. Petals 4-6 mm; Western 1. *M. buchananii*
- * Petals 8-9 mm; Central Kenya 4. *M. parvifolia*



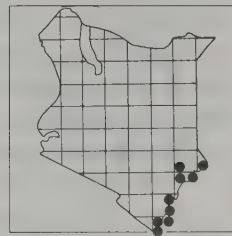
Mkilua fragrans



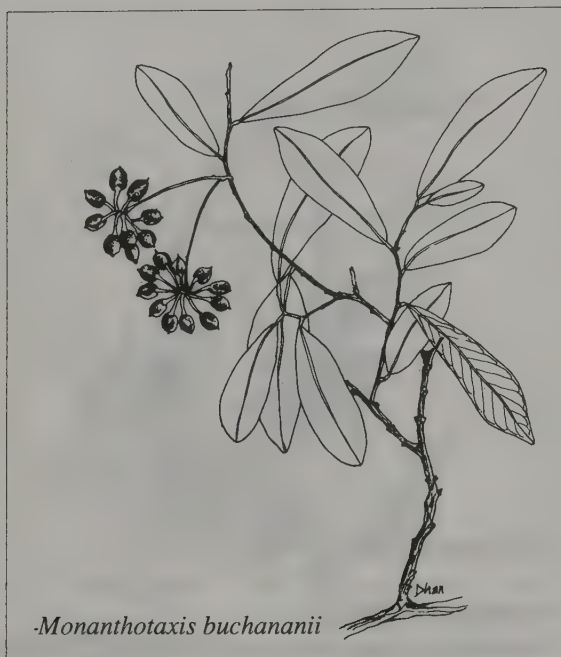
Monanthotaxis buchananii



Monanthotaxis faulknerae



M. fornicata



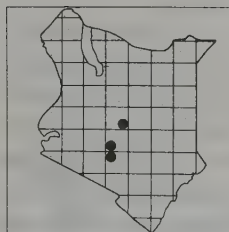
1. *Monanthotaxis buchananii* (Engl.) Verdc.

[*Popowia djurensis* Engl., *P. buchananii* (Engl.) Engl. & Diels] Map p. 47

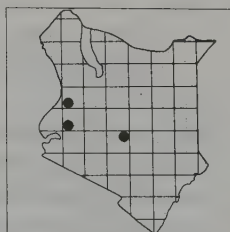
Shrub, climber or tree 1.5-4.5m; bark purple-brown. Leaves elliptic to slightly obovate, base cuneate or obtuse (slightly subcordate), apex obtuse to emarginate, 4-11 by 1-3.5 cm, sparsely puberulous and glaucous beneath. Flowers yellow, extra-axillary, in 1-4 flowered cymes; petals 4-6 mm long. Fruit monocarps red, round with pointed tip, 5-9 mm (rarely with 2 articles).

K57; 1-400m (coast) & 1150-1550m; I, IV, by * Evergreen forest (coast) and thickets on rocky hills (secondary?) in Western Kenya.

Note. Easily confused with *Xylopia* spp.



Monanthotaxis parvifolia



M. schweinfurthii

2. *Monanthotaxis faulknerae* Verdc. Map p.47
Climbing shrub. Leaves elliptic to slightly obovate, base rounded or slightly subcordate, apex rounded or slightly apiculate, 2-5 by 1-2.4 cm, pubescent beneath and densely pellucid-punctate. Flowers yellow, solitary and extra-axillary; petals 8-10 mm long. Fruit monocarps reddish-brown, 3-9-articled, to 13mm.

K7; 1-400m; VIII *

Forest (margins) or *Brachystegia* woodland. Mukomikila (GIR).

3. *Monanthotaxis fornicata* (Baill.) Verdc.

[*Enneastemon fornicatus* (Baill.) Exell] Map p.47

Shrub, 1.5-4 m, or climber to 5m. Leaves elliptic or obovate, base rounded to subcordate, apex rounded, 3-13 by 1-7cm, glabrous (except when young) and glaucous beneath. Flowers yellow, 1-2 on almost leaf-opposed very short shoots; petals 4-7mm long (outer). Fruit monocarps orange or red, ellipsoid or round, 1-2-articled, each article 5-8mm long.

K7; 1-450m; VI-XII.

Forest, woodland, thicket.

Mguku, Mgweni (SWA), Moukatwa (BAJ), Longhi (BON), Mbulishi (GIR).

4. *Monanthotaxis parvifolia* (Oliv.) Verdc.

ssp. *kenyensis* Verdc.

(*Popowia* sp. aff. *oliverana* of KTS)

Climber 1-6m. Leaves slightly obovate, base rounded to subcordate, apex rounded to emarginate, 4-14 by 1.5-7cm, sparsely pubescent and glaucous beneath. Flowers yellowgreen, leaf-opposed; petals 8-9mm long. Fruit monocarps red, 1-3-articled, the article ellipsoid, 7-12mm long.

K4; 1050-1500m; I-II, V, XI *

Riverine, or dry forest.

Mu-unkuma (MER).

5. *Monanthotaxis schweinfurthii* (Engl. & Diels) Verdc. var. *schweinfurthii*

[*Enneastemon schweinfurthii* (Engl. & Diels) Robyns & Ghesq.]

Liana 3-8m. Leaves obovate or elliptic, base cuneate, rounded or truncate, apex acute or acuminate, 6-18 by 3-7cm, appressed-pubescent and glaucous beneath; often with 2 black glands at base. Flowers cream or yellow, (supra-) axillary in fascicles of 1-2(-7); petals 2.5-8mm long. Fruit monocarps orange, 1-5-articu-

late, the articles round or cylindric, 7-12mm long.

K34; 1350-2100m; VIII *

Evergreen forest.

Muganjuki (MER), Lelbujan (NAN).

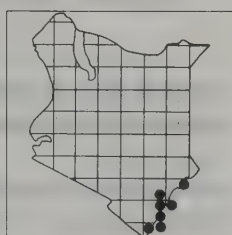
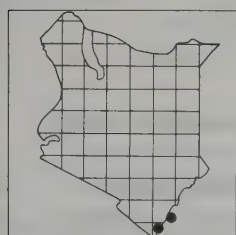
6. *Monanthotaxis trichocarpa* (Engl. & Diels) Verdc.
(*Popowia trichocarpa* Engl. & Diels)

Liana 2-7.5m. Leaves obovate or elliptic, base cordate, apex obtuse to emarginate (rarely acute), 6-14 by 1.5-6.5cm, sparsely reddish-hairy and glaucous beneath. Flowers yellow or greenish-white, extra-axillary, 1-2 together; petals 6-12mm long. Fruit monocarps orange, 1-5 articulated, the articles ovoid, 9-11mm long, densely reddish-hairy.

K7; 50-400m; I, III, IX, XI-XII *

Evergreen forest (Mrima, Shimba, Mwarakaya, Pangani).

Mudazala (DIG). Digo use a leaf decoction against headaches.



Monanthotaxis trichoc. *Monodora gran-*

9. MONODORA

Petals with crisped or wavy margins. Fruits syncarp.

1. Western species

3. *M. myristica*

* Coastal species

2

2. Young shoots and leaves hairy

1. *M. grandidieri*

* Shoots and leaves glabrous

2. *M. junodii*

1. *Monodora grandidieri* Baill.

Shrub or tree 1.5-6(12)m, sometimes scrambling. Leaves obovate or elliptic, base (sub)cordate, apex rounded to shortly acuminate, 2-20 by 1.5-8cm, glabrous or pubescent (if glabrous then margins ciliate). Flowers appearing *with or before young leaves*, white or yellow with pink or red markings, pendulous, solitary, terminal or extra-axillary; outer petals 3.5-6.5cm long. Fruit green with white markings, round or ellipsoid, 5-7.5 by 4-5cm.

K7; 1-400m; I, III-VI, X-XII



Evergreen forest, *Brachystegia* woodland, thickets, bushland.

Mubungo, Mganda-simba (SWA), Mkere (DIG), Mcherere (GIR). The wood is used to make bows and arrows.

2. *Monodora junodii* Engl. & Diels

Shrub or tree to 7m. Leaves obovate or elliptic, 6-17 by 3-6cm, glabrous. Flowers appearing with the young leaves, yellowish turning purple-brown, solitary, (extra-)axillary, pendulous; outer petals 2-4cm long. Fruit green with brown marks, round, 4-5cm.

K7; 1-300m; ?*

Forest and woodland at Marafa, Gongoni, Pangani, Diani, Shimoni, Gotani (N) and Shimba Hills.

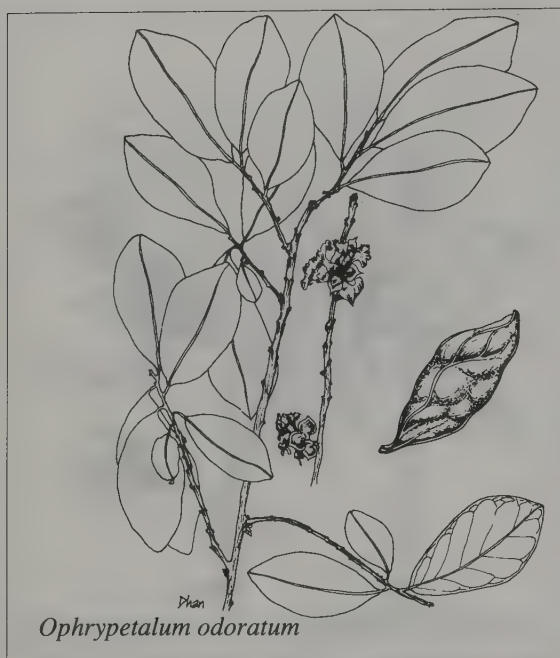
3. *Monodora myristica* (Gaertn.) Dunal

Tree 5-30m, deciduous; bark grey, ridged. Leaves obovate or elliptic, base rounded or cordate, apex shortly acuminate, 6-60 by 3-20cm, glabrous, glaucous. Flowers white or yellow, spotted with red or orange, pendulous, solitary, extra-axillary; outer petals 4-10.5cm long. Fruit dark brown, round, 10-30cm.

K5; 1550-1650m; VIII *

Kakamega forest, especially along rivers.

Lubushi (LUH). Seeds edible.



10. OPHRYPETALUM

Ophrypetalum odoratum Diels

Shrub or tree 3-6m, deciduous and often flowering when leafless; bark grey, slightly fissured. Leaves elliptic or slightly obovate, base cuneate to rounded, 4-12 by 2.5-6cm, glabrous, rather glaucous. Flowers yellow, solitary, extra-axillary, on young or old branches, even on trunk; outer petals 3.5-5.5mm long. Fruit monocarps fusiform, 5-7.5 by 1.8-2cm, velvety. K7; 1-50m; I, III, XII *

Evergreen forest or woodland on coral (Diani, Jadini, Vipingo).

Mnapo (DIG).

11. POLYALTHIA

Polyalthia stuhlmannii (Engl.) Verdc.

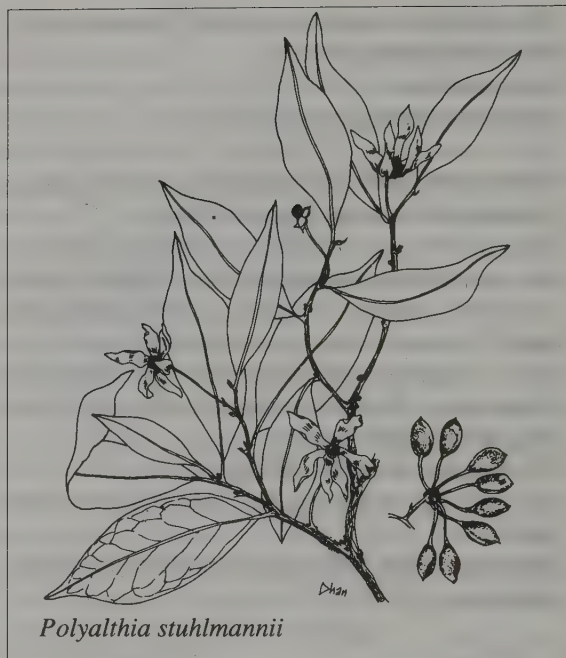
(*Polyalthia* sp. of KTS)

Shrub 3-4.5m. Leaves elliptic, base cuneate, apex acuminate, 5-14 by 2-6 cm, glabrous except when young. Flowers yellowgreen, axillary, solitary or in 2; petals 10-17mm long. Fruit monocarps red, 1-seeded, ellipsoid, 9-10mm long.

K7; 1-50m; VII, XII *

Evergreen forest or *Brachystegia* woodland (Witu, near Malindi and Diani).

Mwangajini (SWA).

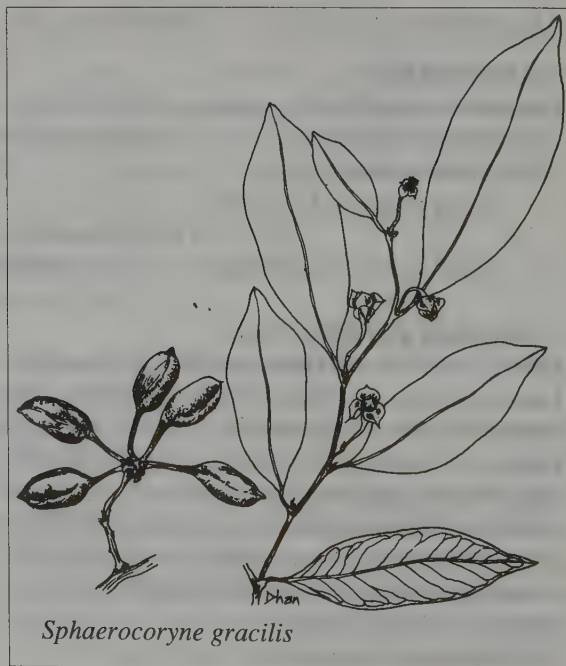


12. SPHAEROCORYNE

Sphaerocoryne gracilis (Engl. & Diels) Verdc.
ssp. *gracilis*

[*Melodorum gracile* (Engl. & Diels) Verdc.]

Shrub, small tree or liana, 3-12m. Leaves elliptic or



(ob) ovate, base cuneate, apex rounded or acuminate, 5-12 by 2-5cm, glabrous or pubescent beneath. Flowers yellowish, solitary or in pairs, terminal or axillary; outer petals 5-14mm long. Fruit monocarps red, cylindrical or ellipsoid, 13-20 by 6-13mm, glabrous. K7; 1-300m; Shimba Hills, Kinondo, Gongoni, Tana.

13. TOUSSAINTIA

Toussaintia orientalis Verdc.

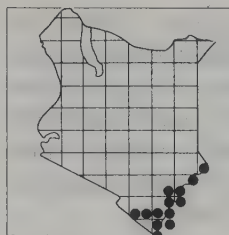
Recently found on Mangea mountain, Kilifi District. A climbing shrub with simple hairs. Leaves densely reticulate. Flowers axillary, 1-3 together; sepals 3; petals 6; stamens many. Fruit monocarps free, 1-3 together, 35 by 15mm, with several longitudinal ridges, covered in black hairs.

14. UVARIA

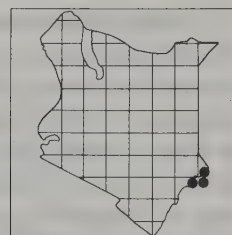
Plants usually with stellate hairs. Sepals 3 or calyx cup-like in bud and splitting; petals 6; stamens many. Fruit of many free monocarps.

KEY TO FLOWERING PLANTS

1. Petals 30-45mm long; pedicel 0-3mm long 4. *U. kirkii*
 - * Petals less than 25mm, or, if up to 30mm than pedicel 8-12mm long 2
2. Calyx cup-like in bud, splitting in 3 when flower opens 6. *U. lucida*
 - * Calyx in bud of 3 distinct sepals 3
3. Leaves discoloured, the underside with dense pale stellate pubescence 5. *U. leptocladon*
 - * Leaves with either sparse hairs or with dense but reddish stellate hairs 4
4. Sepals 8-13 x 7-14mm; petals 12-30mm long 5
 - * Sepals 2-6 by 4-6mm; petals 6-16mm long 6
5. Leaves glabrous or with simple hairs 8. *U. welwitschii*
 - * Leaves with stellate hairs 3. *U. faulknerae*
6. Leaves and young branches glabrous; sepals 2-2.5mm long 7. *U. scheffleri*
 - * Leaves and young branches glabrous or stellate-pubescent; sepals 4-6mm long 7
7. Leaves stellate-pubescent; petals 6-13mm long, stellate-puberulous 1. *U. acuminata*
 - * Leaves glabrous or sparsely stellate-hairy; petals 10-16mm long 8
8. Coastal species; petals glabrous 2. *U. denhardtiana*
 - * Inland species; petals hairy 5. *U. leptocladon*



Uvaria acuminata



Uvaria denhardtiana

KEY TO FRUITING PLANTS (Note: fruits of *U. faulknerae* are unknown)

1. Stalks of individual monocarps longer than monocarps 2
 - * Stalks shorter than monocarps 3
2. Monocarp stalks 5-13mm long 2. *U. denhardtiana*
 - * Monocarp stalks 30-55mm long 8. *U. welwitschii*
3. Ripe monocarps glabrous or nearly so 7. *U. scheffleri*
 - * Ripe monocarps densely hairy 4
4. Monocarps (sub) sessile, the stalks less than 3mm long 5
 - * Monocarps stalked, the stalks 4-12mm long 6
5. Leaves with scattered rough stellate hairs beneath 1. *U. acuminata*
 - * Leaves with continuous greyish-white fine stellate hairs, or glabrous 5. *U. leptocladon*
6. Monocarp stalks 4-8 mm long; monocarps distinctly warty 4. *U. kirkii*
 - * Monocarp stalks 7-12mm long; monocarps slightly bumpy 6. *U. lucida*

1. *Uvaria acuminata* Oliv.

Shrub, tree or liana 1-6m. Leaves elliptic to obovate, base rounded to cordate, apex acuminate or less often obtuse, 3-8(12) by 1-4cm, sparsely to densely stellate-pubescent beneath. Flowers white or pale yellow, solitary or in pairs, terminal or extra-axillary; petals 6-13mm long. Fruit monocarps yellow or orange, round or ovoid, 8-16mm, 1-4-seeded.

K7; 1-1000m; I, III-VI, X-XII

Forest, woodland, bushland, thickets.

Mganda-simba (SWA), Tomorr (BON), Mudzala (DIG), Mrori (GIR), Shiyole (SAN). Fruit edible; Digo use a root decoction against dysentery.

2. *Uvaria denhardtiana* Engl. & Diels Map p. 51
Shrub 1-3m. Leaves elliptic or slightly obovate, base rounded or cuneate, apex obtuse, 2-8.5 by 1-3cm, glabrous or with a few stellate hairs near midrib beneath. Flowers cream or yellow, solitary, extra-axillary; petals 12-16mm long. Fruit monocarps orange to red, round, 8-12mm, 1-2 seeded.

K7; 1-50m; I, IX, XII *

Bushland or grassland, usually on sand dunes.

Kilua, Murukatwa (BAJ), Halas (BON). Fruit edible.

3. *Uvaria faulknerae* Verdc.

Liana to several metres. Leaves elliptic or slightly obovate, base rounded or obtuse, apex obtuse or slightly acuminate, 2-14 by 1.5-4.5cm, sparsely stellate-hairy beneath. Flowers yellow, solitary, leaf-opposed or extra-axillary; petals 15-30mm long. Fruits unknown.

K7; 50-200m; I *

Evergreen forest (in Tanzania also outside forest).

Only known from Rabai and Pangani.

4. *Uvaria kirkii* Oliv.

Shrub 1-2m or scrambler to 7.5m. Leaves (broadly) elliptic, base rounded or cordate, apex obtuse to emarginate, 3-12 by 3-5cm, glabrous or sparsely stellate-hairy beneath. Flowers cream or pale yellow, solitary, terminal or leaf-opposed; petals 30-45mm long. Fruit monocarps oblong, 17-25 by 8-11mm, 5-8 seeded.

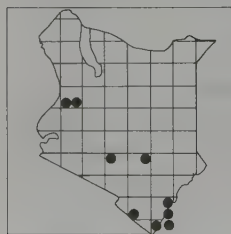
K7; 1-50m; I-II, X-XI *

Palm-wooded grassland or riverine: Malindi and Lamu/Witu area.

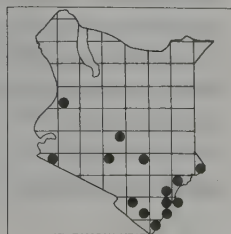
Fruit edible; the roots give a black dye.

5. *Uvaria leptocladon* Oliv.

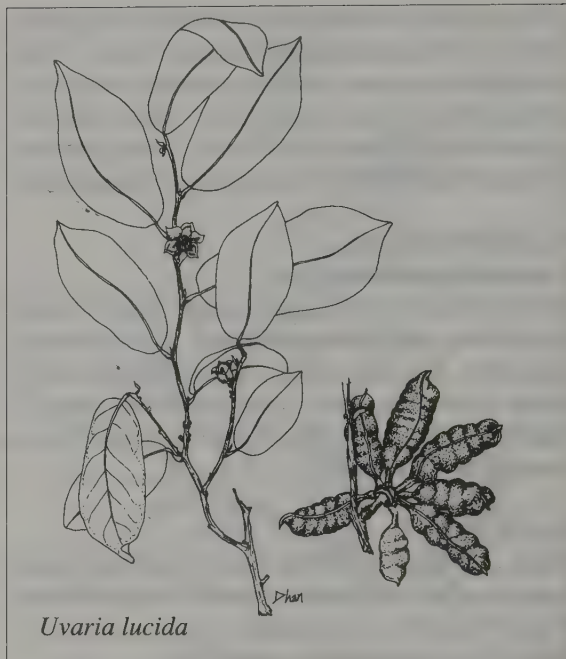
Shrub or tree 2-3m or liana to 6m. Leaves elliptic or slightly obovate, base rounded or subcordate, apex obtuse or acuminate, 1-12 by 0.8-4cm, stellate-tomentellous or almost glabrous (inland form) beneath. Flowers cream or yellow, solitary or in pairs, leaf-



Uvaria leptocladon



Uvaria lucida



opposed; petals 10-14mm long. Fruit monocarps round or ovoid, 8-20 by 8-11mm, 3-9-seeded.

K7; 1-750m; IV *

Drier forest, thickets, secondary bushland.

Mosholole (ILW), Sholole (ORM, SOM).

Note: there is an inland form, distinct by its (almost) glabrous leaves, also found once on the lower Tana.

K2347; (30-) 1050-1350m; III *

Wooded grassland, on rocky hillsides.

Mulkusion (PKT). A root decoction is used as a diuretic, but may cause abortion.

6. *Uvaria lucida* Benth. ssp. *lucida*

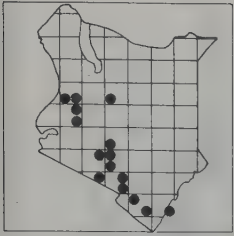
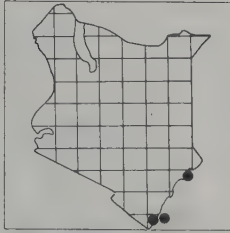
(incl. *U. dielsii* R.E. Fries)

(Climbing) shrub or liana 1-7m. Leaves elliptic or obovate, base rounded (subcordate), apex obtuse to acuminate, 1-10 by 0.5-6cm, stellate-pubescent and scaly beneath. Flowers yellowgreen, solitary or in 2 to 3, terminal, leaf-opposed or extra-axillary; petals 7-20mm long. Fruit monocarps rusty brown, round or ellipsoid, 9-30 by 7-13mm, 3-12-seeded.

K2467; 1-450m (coast), 750m (Kilibasi), 1450-1800m; I, IV-IX, XI-XII

Forest margins, riverine forest, *Brachystegia* woodland, coastal bushland.

Mganda-simba (SWA), Halas (BON), Mungweni

*Uvaria scheffleri**Uvaria welwitschii*

(DIG), Mudzala (GIR). Roots poisonous.

Note. Drummond & Hemsley 3860 and Luke & Robertson 1699 from Buda are different from normal *lucida*. They are closer to *U. angolensis*.

7. *Uvaria scheffleri* Diels

Tree or more often a liana, 1-4m. Leaves aromatic, elliptic, base obtuse or rounded, apex acute to acuminate, 2-14 by 1-6cm, glabrous or nearly so. Flowers yellow, solitary, leaf-opposed; petals 9-15mm long. Fruit monocarps yellow or orange, round to cylindrical, 18-32 by 6-11mm, 1-8-seeded.

K123467; (200) 900-1800m; IV-VIII, X-XII

Dry forest, riverine, woodland, thickets or evergreen bushland.

(Mu)guguma (KAM), Murguiyo (MAR), Tamrenwo (PKT), Tamingetwo (TUG). Root bark used against malaria; fruit edible.

8. *Uvaria welwitschii* (Hiern) Engl. & Diels

Tree or liana 2-9m; bark smooth, reddish brown with grey patches. Leaves elliptic to obovate, base cuneate or rounded, apex obtuse to shortly acuminate, 6-15 by 2.5-5cm, glabrous or with simple hairs beneath. Flowers yellowish, solitary or in pairs, terminal or extra-axillary; petals 12-25mm long. Fruit monocarps round or ellipsoid, 10-15 by 8-12mm, 2-seeded.

K7; 1-300m; - *

Evergreen forest.

15. UVARIODENDRON

Sepals 3, not enclosing petals in bud. Petals in two series of 3, the inner smaller. Fruit of monocarps, often constricted between the seeds.

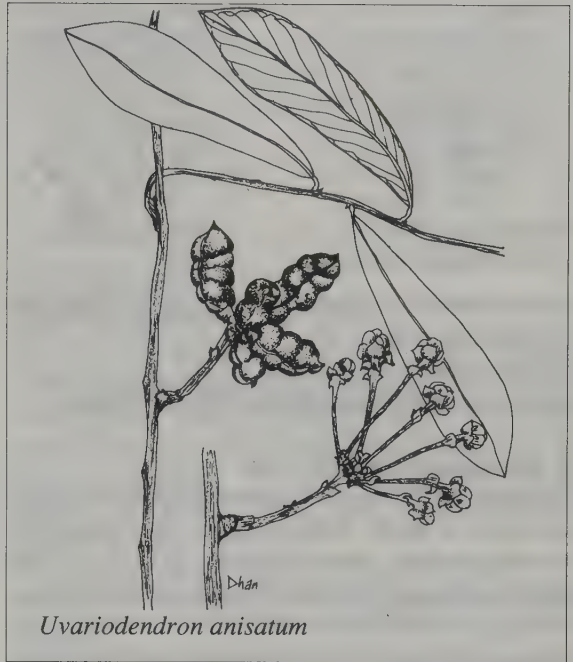
1. Inland species; parts smell of aniseed

1. *U. anisatum*

* Coastal species; parts not smelling of aniseed 2

2. Outer petals 25-30mm long; monocarps 40-80 by 6-10mm

2. *U. gorgonis*

*Uvarioidendron anisatum*

* Outer petals 15-22mm long; monocarps 16-45 by 13-20mm

3. *U. kirkii*

1. *Uvarioidendron anisatum* Verdc.

RARE

Shrub or tree 3.5-9m; bark greybrown, smooth; most parts aniseed-scented. Leaves elliptic, base rounded or cuneate, apex acute or obtuse, 8-30 by 4-11cm, sparsely pilose beneath; young foliage red. Flowers cream-yellow, solitary from old wood (or axillary); outer petals 18-23mm long. Fruit monocarps dark blue, cylindric, 25-60 by 13-18mm, pubescent to glabrous.

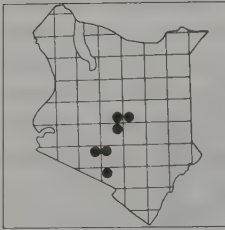
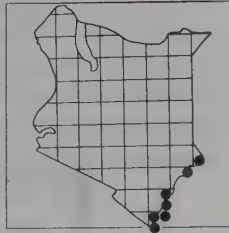
K46; 1150-1800m; I-III, V-VI, XII * Map next page Rather dry evergreen forest; may be common. Endemic.

Mutonga (KIK), Mutongu (MER). The wood is used for walking sticks and ax handles.

2. *Uvarioidendron gorgonis* Verdc.

ENDANGERED

Tree 3-12m; bark greybrown, smooth; most parts lemon-scented. Leaves elliptic, base rounded or broadly cuneate, apex acuminate, 8-41 by 3-13cm, sparsely pubescent beneath; young foliage pinkish. Flowers cream outside, red inside, solitary or in fascicles from old wood; outer petals 25-30mm long. Fruit mon-

*Uvariadendron anisatum**U. kirkii*

ocarps narrowly cylindrical, 40-80 by 6-10mm, appressed-pubescent.

K7; 50-300m; I, XI *

Moist evergreen forest: Mrima Hill and Pangani.

3. *Uvariadendron kirkii* Verdc.

Shrub or tree 2-12m (twice reported as scandent); bark dark grey to black. Leaves elliptic, base rounded or broadly cuneate, apex acuminate, 7-18 by 2-7cm, sparsely pubescent beneath. Flowers cream or yellow, solitary or in fascicles on old wood, or axillary; outer petals 15-22mm long. Fruit monocarps yellow or orange, cylindric, 16-45 by 13-20mm, puberulous to glabrous.

K7; 1-400m; I-II, VI-VIII *

Moist or dry evergreen forest, less often in dense bushland.

Mnofu-wa-kuku (SWA), Mbulishi (GIR).

NOTE. Luke 1946 from Nyari, between Dida and Tezo (Kilifi Distr.) has very conspicuous tertiary venation and kidney-shaped bracts, but otherwise resembles *U. kirkii*. This is possibly yet another new species; but a fruit collection will be necessary to confirm this.

16. UVARIOPSIS

Sepals 2; petals 4. Fruit of monocarps.

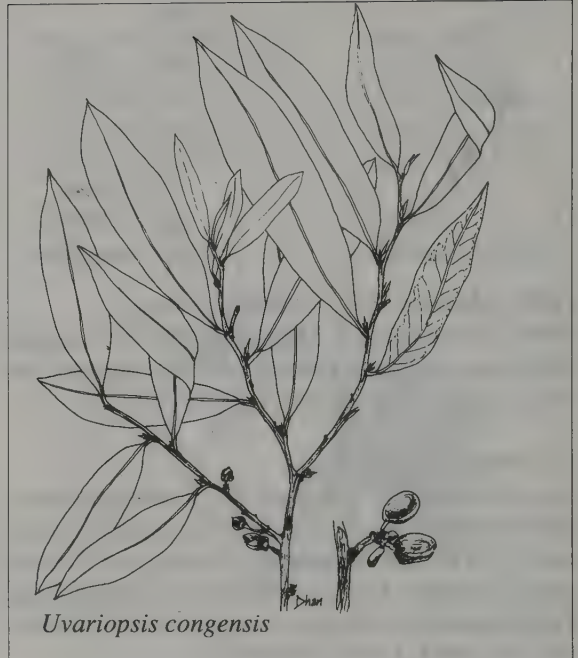
Uvariopsis congensis Robyns & Ghesq.

Shrub or tree 4-12(16?)m; bark fissured, greygreen. Leaves elliptic, base cuneate, apex obtuse or acuminate, 6-15 by 2-5.5cm, glabrous (silky when young). Flowers cream, solitary on old wood or axillary; petals 5-6mm long. Fruit monocarps red, ellipsoid or cylindrical, 17-45 by 11-18mm, glabrous or pubescent.

K5, Kakamega forest; 1550-1650m; XII *

Secondary forest.

Mukumasia (LUH). Used to make bows.

*Uvariopsis congensis*

17. XYLOPIA

Sepals 3, petals in 2 whorls of 3. Fruit of monocarps.

1. Leaves leathery; buds near middle 2-4mm wide; monocarps over 15 in number 1. *X. aethiopica*

* Leaves thin; buds near middle 1-2mm wide; monocarps up to 10 2

2. Shrub or tree to 5m; leaves especially hairy along margins 2. *X. arenaria*

* Tree 9-24m; leaf hairs evenly distributed

3. *X. parviflora*

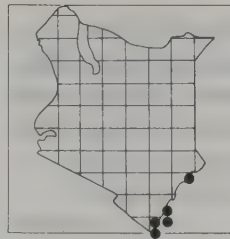
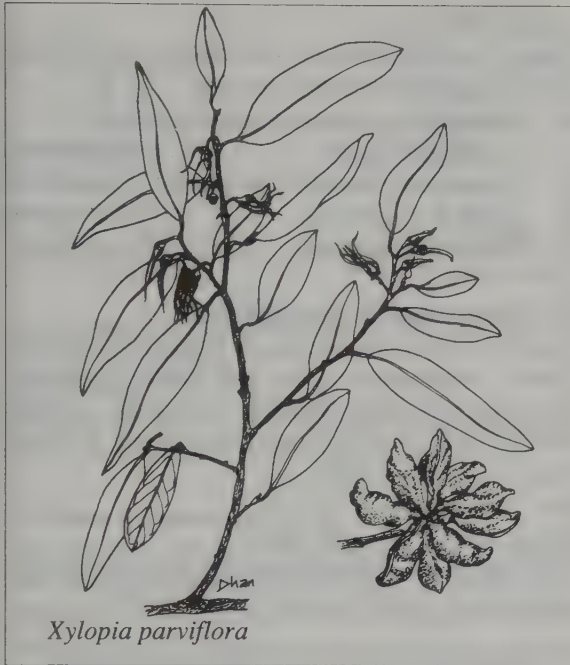
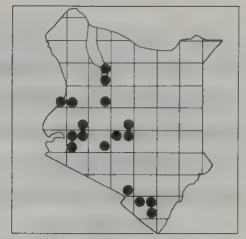
1. *Xylopia ?aethiopica* (Dunal) A.Rich.

Shrub or tree 5-30m; bark smooth, grey-brown. Leaves ovate or elliptic, base cuneate to rounded, apex obtuse to acuminate, 8-16 by 3-6.5cm, glabrous or appressed-pubescent beneath. Flowers cream or yellow, solitary or in few-flowered fascicles, axillary; outer petals 25-55 mm long. Fruit monocarps reddish, cylindrical, 15-60 by 5-7mm, glabrous.

K7; collected once (Faden 74/306) 7km E of Mrima Hill, at 40m altitude, in forest. The specimen certainly looks like this species, but is much lower in altitude than all other collections (800-1200m).

2. *Xylopia arenaria* Engl.

Shrub or tree 1-5m. Leaves elliptic or ovate, base

*Xylopia parviflora**Xymalos monospora***1. XYMALOS***Xymalos monospora* (Harv.) Warb.

Tree 6-15 m, evergreen; bark grey, rough, flaking. Leaves (sub)opposite, gland-dotted, elliptic or obovate, base cuneate, apex rounded to shortly acuminate, margin coarsely glandular-crenate/serrate, 6-20 by 2.5-8cm, glabrous. Flowers cream or greenish, in panicles or racemes 1-4cm long. Fruit yellow to reddish, ovoid, 1-2cm long.

K1234567; 1400-2700m; III, VII, IX, XI-XII *

Moist forest; common in forest on isolated hills in dry country.

Lemon wood (STAND), Tele (CHA), Zewe (KAM), Murendetii, Mukohokoho (KIK), Serwendetii (KIP), Kiptassi (MAR), Muako (MER), Kalkaldet (NDO), Kipteldet (SEB), Ndiyo-Ya-Kisanga, Mamasungu (TAI). A good timber.

rounded, apex acute or slightly acuminate, 1-6 by 0.5-2.5cm, pilose beneath. Flowers greenish-cream, solitary, axillary; outer petals 8-11mm long. Fruit monocarps red, cylindric, 15-30 by 6-9mm, glabrous(?) K7; 1-500m; VII-VIII, XI-XII

Brachystegia woodland of Arabuko-Sokoke forest, Maluganji, Mangea and Buda Mafisini. Mkunambawa, Mtuma-mrihi (GIR).

3. *Xylopia parviflora* (A.Rich.) Benth.(incl. *X. holtzii* Hutch. & Dalz.)

Tree 9-24m; slightly buttressed at base; bark smooth, grey. Leaves elliptic, base rounded or cuneate, apex acute, 5-11 by 1-4.5cm, pubescent beneath. Flowers yellowgreen, solitary or few together, axillary; outer petals 10-26mm long. Fruit monocarps red or green, cylindrical, 10-37 by 7-11mm, glabrous or pubescent. K7; 1-250m; VI-VIII *

Dry evergreen or semi-deciduous forest.

Used for timber.

10. MONIMIACEAE

Leaves opposite, exstipulate. Flowers small, unisexual, in axillary racemes or panicles. Male flowers with 4-6 lobes and 10-15 stamens; female flowers with 3-5 lobes. Fruit fleshy, 1-seeded.

*Xymalos monospora*

11. LAURACEAE

All parts with oil cavities. Leaves alternate or subopposite, simple, entire, exstipulate. Flowers small; sepals 6-8, petals absent. Stamens in 3-4 whorls. Fruit a 1-seeded drupe.

- | | | |
|----|---|------------------------|
| 1. | Anthers 4-celled; fruit at the base with a rimmed cup | 3. <i>Ocotea</i> |
| * | Anthers 2-celled; fruit different (see 2) | 2 |
| 2. | Fruit on a bare pedicel | 1. <i>Beilschmidia</i> |
| * | Fruit enclosed in the enlarged flower tube | 2. <i>Cryptocarya</i> |

1. BEILSCHMIDIA

Two sterile specimens collected in K3, on the Elgeyo escarpment (Parnell 1) and in K5, Kakamega forest, (Faden 69/2030) might belong to this genus, although probably not to the same species.

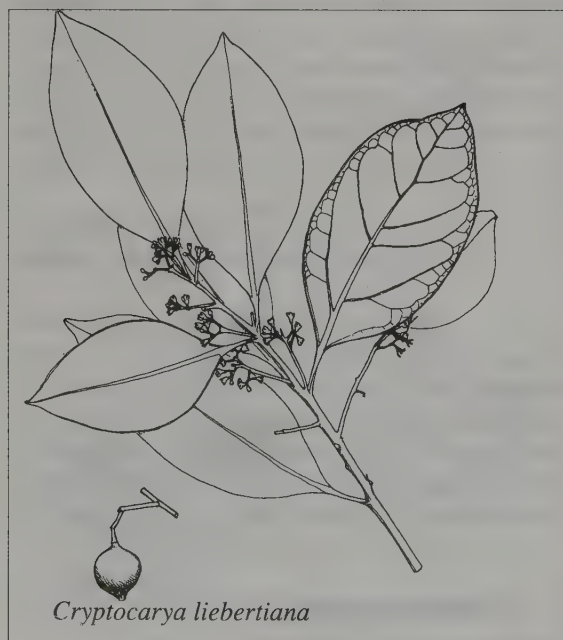
2. CRYPTOCARYA

Cryptocarya liebertiana Engl.

Tree to 25m, evergreen; bark rough, grey-brown. Leaves elliptic, base cuneate, apex acute, 6-10 by 3-4cm, with hairy midrib. Flowers greenish, in short axillary panicles. Fruit red or purple, about 2cm across.

K7; 1600-1700m; -*

Moist forest; in Kenya only known from Taita Hills.



3. OCOTEA

Trees. Flowers in lateral or terminal panicles. Fruit with a cup-like structure at the base.

- | | | |
|----|--|---------------------------|
| 1. | Branchlets puberulous; leaves glaucous-whitish beneath | 3. <i>O. usambarensis</i> |
| * | Branchlets glabrous; leaves greenish beneath | 2 |
| 2. | Fruits 8-11mm long | 1. <i>O. argylei</i> |
| * | Fruits 15-20mm long | 2. <i>O. kenyensis</i> |

1. *Ocotea argylei* Robyns & Wilczek

Tree to 21m, bark flaking in rectangular patches. Leaves ovate, base cuneate, apex shortly acuminate, 10-14 by 4.5-6.5cm. Flowers not known. Fruit in axillary panicles to 7cm long; drupes ovoid, 8-11 x 6-8mm, cup to 7mm high.

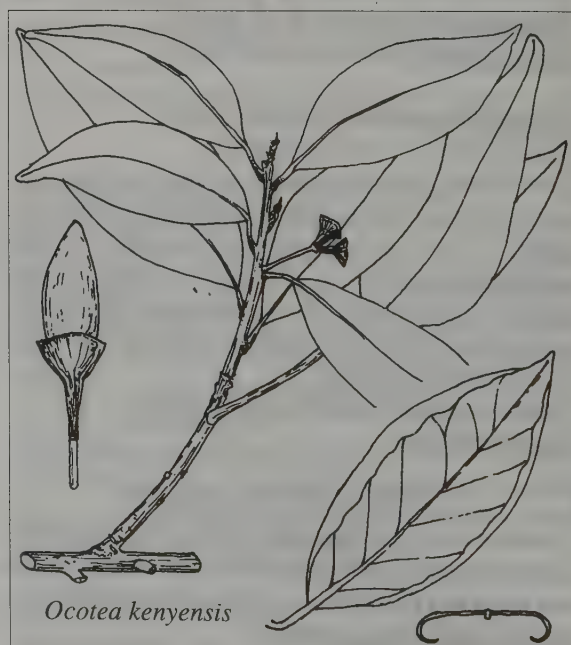
K5; 2200-2500m; -*

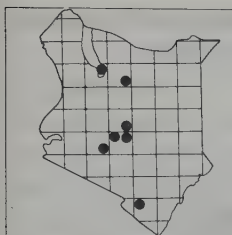
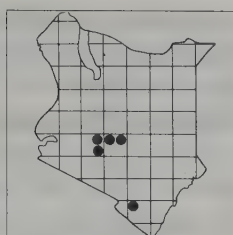
Moist forest (Posta Hill, Mau).

This species might be synonymous with *O. kenyensis*; otherwise it is endemic and VULNERABLE.

2. *Ocotea kenyensis* (Chiov.) Robyns & Wilczek

Tree, 15-30m, evergreen; bark grey to blackish, with small rectangular flakes. Leaves ovate, base rounded or cuneate, apex shortly acuminate, margin wavy, 8-15 by 3-9cm, glabrous. Flowers male, female or bisexual, about 3mm long in 10-25-flowered, puberulous panicles to 9cm long. Fruit ovoid, 15-20 x 8-



*Ocotea kenyensis**Ocotea usambarensis*

14mm, cup 5-7mm high and wider than the fruit.

K147; 1150-2100m; I, VI *

Moist forest.

Muthuta, Muikoni (KIK), Mututuriet (KIP), Masaiat (REN), Knaget (TUG). A superior hardwood.

3. *Ocotea usambarensis* Engl.

Tree, 25-45m, evergreen; bole massive, slightly fluted; bark reddish brown, scaly or flaky. Leaves often subopposite, strongly discolorous, glaucous-whitish, ovate or elliptic, base rounded or cuneate, apex acute or shortly acuminate, margin often inrolled, 5-10 by 3-5.5cm (-14 x 8cm on sucker shoots), often puberulous beneath; camphor-scented when crushed. Flowers greenish in 10-25-flowered puberulous panicles, 1.5-6cm long; corolla about 3 mm long. Fruit ovoid, to 6 x 5mm, with a cup to 2.5mm high.

K47; 1700-2600m; III-IV, VI *

Moist forest.

Camphor (TRADE), East African Camphor-Wood (STAND), Muthaiti, Musili (KIK), Muura (MER), Muthura (EMB), Manyoda, Munganga, Mulongo (TAI). Hardwood timber.

KTS reports that this species also occurs in K3, S. Kamasia Hills, but I have not seen any specimens from this area.

13. HERNANDIACEAE

Leaves alternate, simple or compound, entire or lobed, exstipulate. Flowers male, female or bisexual, with 3-10 sepaloïd segments. Ovary inferior, 1-seeded.

1. Leaves compound with 5 leaflets; lianes

3. *Illigera*

* Leaves simple; shrubs or trees

2

2. Leaves peltate

2. *Hernandia*

* Leaves cordate to cuneate

1. *Gyrocarpus*

1. *GYROCARPUS*

Trees or shrubs with soft white wood. Flowers in

cymes, small, male or female; sepals 7. Fruit with 2 parallel, narrowly obovate wings.

1. Leaves 10-20cm long; fruit wings 1.2-2cm wide

1. *G. americanus*

* Leaves 2-4.5cm long; fruit wings 0.5-0.7cm wide

2. *G. hababensis*

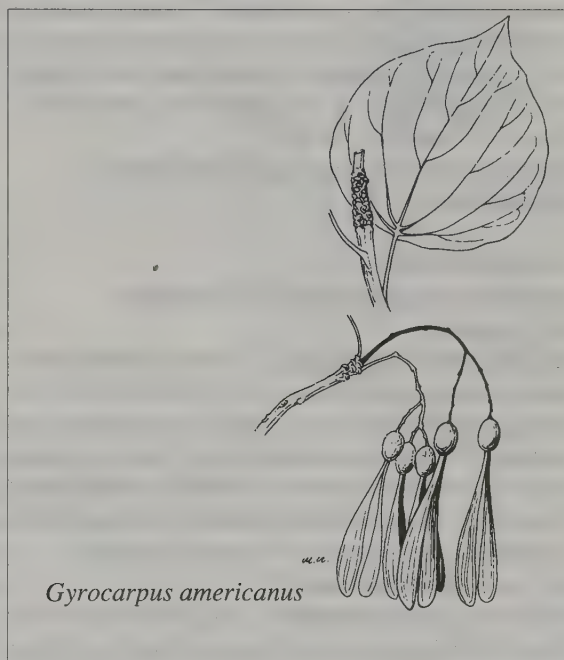
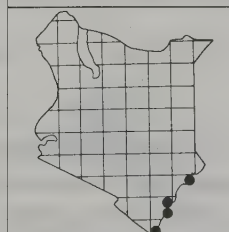
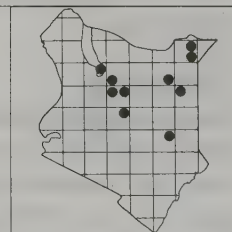
1. *Gyrocarpus americanus* Jacq.

(*G. jacquinii* Gaertn.)

Tree to 20m, deciduous; bark whitish, smooth, later rough. Leaves 3-lobed on young trees, entire on older ones, (broadly) ovate, base cordate, rounded or rounded and cuneate, apex acuminate, 11-20 by 9-17cm, glabrous or puberulous beneath. Flowers yellow, many in much branched cymes to 9cm long; petals to 2mm long. Fruit ovoid, glabrous or puberulous, to 18 x 14mm, wings 4-9 x 1.2-2cm.

K7; 1-150m; IX *

Evergreen forest or wooded grassland and woodland.

*Gyrocarpus americanus**Gyrocarpus americanus**Gyrocarpus hababensis*

2. *Gyrocarpus hababensis* Chiov.

* Leaves as long as wide, or wider than long; fruit and inflorescence glabrous or nearly so

-var. *hababensis*

* Leaves longer than wide; fruit and inflorescence pubescent

-var. *angustifolius*

- var. *hababensis*

Tree 7-14m, bark grey or purplish, smooth, sometimes flaking in circular patches. Leaves broadly obovate, circular or reniform, base cordate or rounded and cuneate, apex rounded, 2.5-4 by 2-5.2cm, glabrous, or puberulous when young. Flowers yellow, many in much-branched cymes to 5cm long.; petals to 2.5 mm long. Fruit ovoid, glabrous or nearly so, to 10 x 6mm, wings 3-4 x 0.5-0.7cm.

K1; 200-900m; I, III-V *

Acacia-Commiphora bushland.

- var. *angustifolius* Verdc.

Shrub or tree 3.5-6m (once reported as a tall tree), bark smooth, pale grey or greyblack. Leaves ovate or elliptic, base rounded, apex rounded to nearly acute, 2-4.5 by 1-3cm, glabrous, or puberulous when young. Flowers and fruit as in var. *hababensis*, but velvety.

K1; 450-1350m; V, XI-XII *

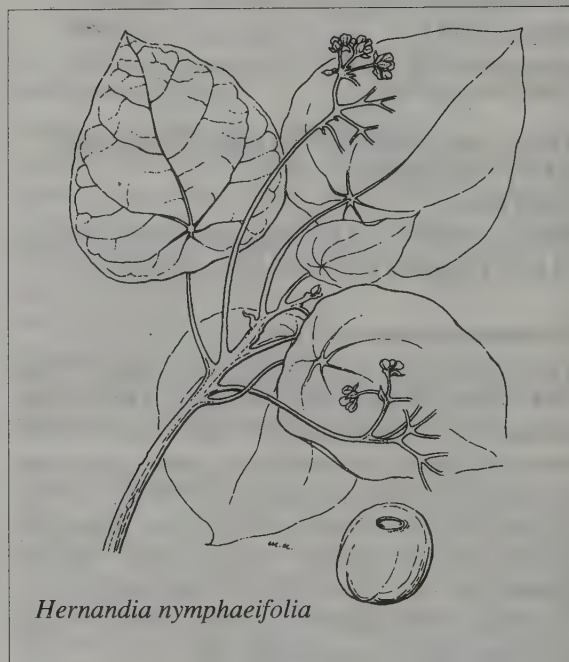
Rocky outcrops or along luggas in bushland.

Kawisa (ORM).

icles; petals 5-7mm long. Fruit brown, with a broadly ovate wing on each side, 2.5-4 x 6-11cm.

K5; 1550-1650m; VI *

Yala R. & Kakamega Forests.



Hernandia nymphaeifolia

2. HERNANDIA

***Hernandia nymphaeifolia* (Presl) Kubitzki**
(*H. sonora* L.)

Tree to about 10m, bark grey. Leaves peltate, ovate, base rounded, apex acute, (8-) 13-26.5 by (5-) 10-19cm, glabrous; petiole inserted 1.5-3cm above the leafbase. Flowers yellowish to white, male or female, in many-branched cymes to 17cm long; corolla about 5mm long. Fruit rose-pink (yellowish), inflated, half-translucent, ovoid, about 4 x 3.5cm, 1-seeded.

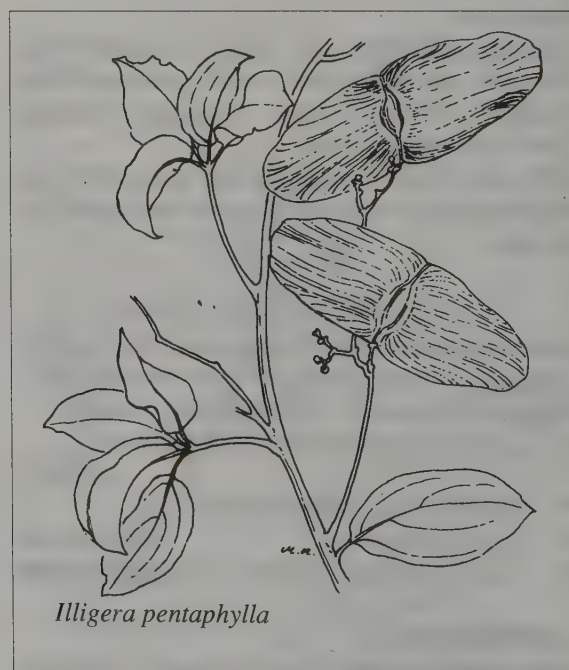
K7; near highwater mark; I *

Only one population known, along Galu beach near Diani; this is the only one known from the African mainland.

3. ILLIGERA

***Illigera pentaphylla* Welw.**

Climber, 3-15m. Leaves (3-) 5-foliolate; leaflets ovate, base rounded or cordate, apex obtuse or acuminate, 5.5-9 by 3-6cm, pilose at least on the veins beneath. Flowers white, in axillary or terminal pan-



Illigera pentaphylla

15. RANUNCULACEAE

CLEMATIS

Leaves opposite, pinnate, with the petiole and rachis twining round support. Flowers regular; sepals 4, looking like petals; petals absent. Stamens and carpels many. Fruit an achene, with a persistent plumose style.

1. Coastal species, below 500m; leaflets not toothed **2. *C. sigensis***
- * Inland species, above 700m; leaflets toothed **2**
2. Leaflets lobed, medium green **1. *C. brachiata***
- * Leaflets not lobed, dark shiny green **3. *C. simensis***

1. *Clematis brachiata* Thunb.

(*C. hirsuta* Perr. & Guill.)

Shrubby climber 0.5-4m. Leaves with 5(7) leaflets; leaflets lobed, ovate in general outline, base cordate, apex acute or acuminate, margins crenate-dentate, 2-10 by 1.5-7cm, glabrous to densely hairy. Flowers white or cream, rarely yellow, in many-flowered panicles; sepals 1-2.5cm long (enlarged in fruit). Fruits tiny, with up to 5cm long plumose style.

K123456; 700-2600m; I-XII (V-VIII, X-XI) *

Forest margins, secondary bushland, wooded grassland.

Ilkisuchi (DOR), Ewalia (KAM), Muguyumundu, Mugaingundu (KIK), Kisengwet (KIP), Lunyili (LUH), Achugo (LUO), Olkisushet (MAA), Pising (MAR), Sigiet (SAM). Root decoction used against cold and fever.

2. *Clematis sigensis* Engl.

VULNERABLE

Climber to 25m. Leaves with 5 leaflets; leaflets ovate, base rounded or cordate, apex obtuse and mucronate to acuminate, margins entire (or sometimes lobed in lowermost leaves), 4-12 by 1.5-6 cm (up to 15 by 12 cm in lower leaves), glabrous or nearly so. Flowers white, in many-flowered panicles; sepals 12-15 mm long. Fruit with 5-7 cm long plumose style.

K7; 350-400m; -*

In Kenya only collected in Shimba Hills forest and Dzombo Mt.

Note: Gillett 18715 is sterile, and the lowermost leaves have lobed leaflets. The upper leaves are very similar to *C. sigensis* s.s., so I have included the specimen here.

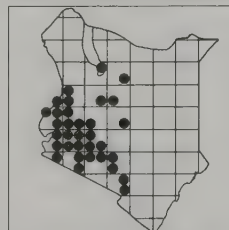
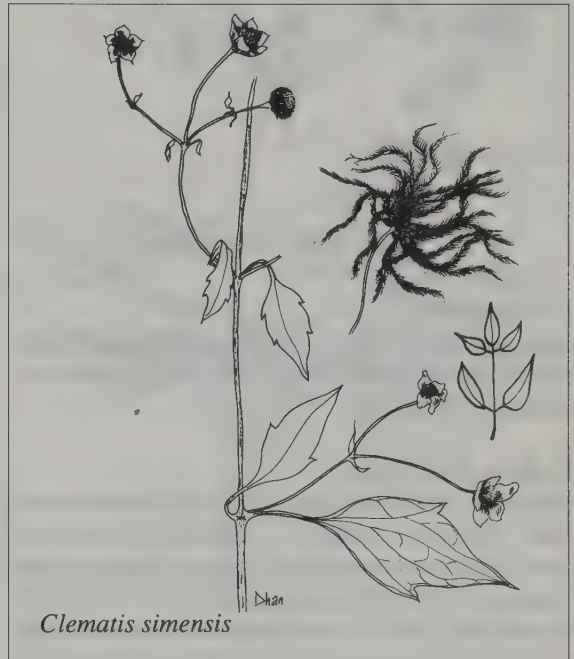
3. *Clematis simensis* Fresen.

Liana 5-20m. Leaves with 5 leaflets (less near inflorescence); leaflets (narrowly) ovate, base rounded or cordate, apex acuminate, margins dentate, 3-12 by 1-4.5cm, glabrous to densely pubescent. Flowers white, in many-flowered panicles; sepals 0.7-1.6cm long. Fruit as in *C. brachiata*.

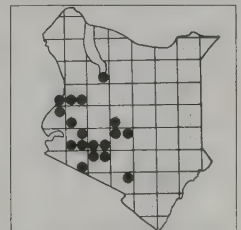
K123456; 1550-3300m; I, VI-XIII (VII)

Forest margins, bamboo /*Hagenia*/heath zone, secondary bushland.

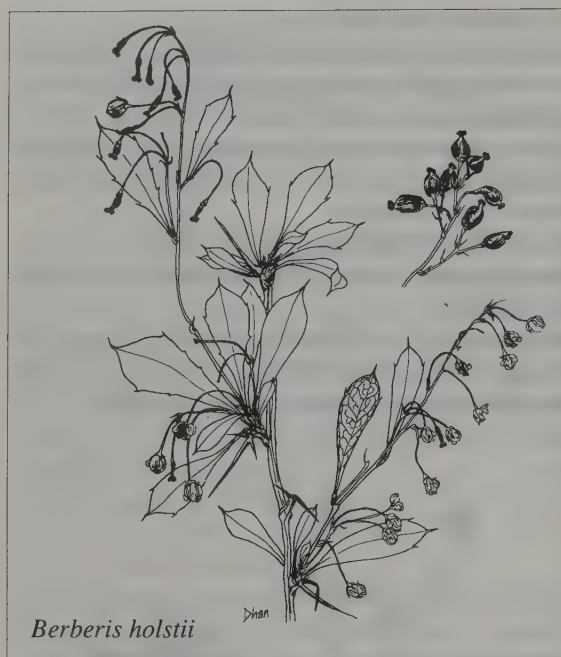
Bisingwet (KIP), Olkisushet (MAA), Bisung'wa, Pising (MAR), Sasia (NAN). Maasai use a root decoction against malaria; it causes diarrhoea.



Clematis brachiata



Clematis simensis



19. BERBERIDACEAE

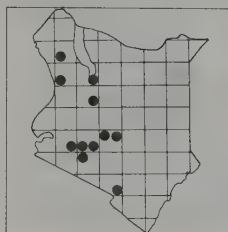
1. BERBERIS

Spines present, at base of short shoots bearing leaves and flowers; flowers in little-branched panicles, 6-merous. Fruit a berry.

Berberis holstii Engl.

Shrub 0.9-2.5m. Branches with 3-5-fid spines to 4cm long. Leaves in bunches, 3-foliolate with tiny (1-3mm) laterals; terminal leaflet slightly obovate, spine-tipped and often with more than one spine near apex or on margins, 2-6 by 1-2cm, glabrous. Flowers yellow, in several-flowered panicles 2.5-7.5cm long; petals 4.5-6mm long. Fruit red to blueblack, ellipsoid, 8-12 by 6-7mm, often with remnant of the style at the top. K12346; (1650) 2150-3000m; IV-V, XII *

Forest (margins) and upland bushland, often associ-

*Berberis holstii*

ated with giant heath.

Muthundi (KAM), Kamukururi, Mukenyenye (KIK), Kipsoroin (MAR), Olekikuuni (MAA), Murage (MER).

23. MENISPERMACEAE

Leaves alternate, exstipulate, occasionally with palmate venation. Inflorescences usually many-flowered, axillary or on old wood. Flowers small, unisexual; sepals 3-12, petals 1-6; stamens or carpels 3-6. Fruit of separate drupes.

- | | |
|---|-------------------------------|
| 1. Leaves peltate (petiole above leaf base) | 2 |
| * Leaves with petiole at leafbase | 3 |
| 2. Leafbase rounded | 6. <i>Stephania</i> |
| * Leafbase cordate | <i>Cissampelos</i> (see UKWF) |
| 3. Leaves 3-5-lobed | 4 |
| * Leaves not lobed | 5 |
| 4. Leaves 4-6cm long; leafbase cuneate or rounded | 4. <i>Cocculus hirsutus</i> |
| * Leaves 9-35cm long; leafbase cordate | 5. <i>Jateorhiza</i> |
| 5. Leaf-petiole with pulvinus (thick base) | 6 |
| * Petiole without a clear pulvinus | 8 |
| 6. Flowers in dense clusters | 10 |
| * Flowers in long (5-40cm) pseudoracemes | 7 |
| 7. Aerial roots often present; bark peeling; carpels 3 | 8. <i>Tinospora</i> |
| * Aerial roots absent; bark not peeling; carpels 6-30, on a gynophore | 7. <i>Tiliacora</i> |
| 8. Leafbase cordate; petiole 2.5-14cm | 9 |
| * Leafbase cuneate to rounded; petiole 0.2-2.5cm | 11 |
| 9. Leaves densely hairy | 3. <i>Chasmanthera</i> |
| * Leaves glabrous | 8. <i>Tinospora caffra</i> |
| 10. Young branches glabrous | 3. <i>Epinetrum</i> |
| * Young branches rusty-tomentellous | 9. <i>Triclisia</i> |
| 11. Dry area plants, with obtuse and mucronate leaf-apex | 4. <i>Cocculus</i> |
| * Moist forest plants, with obtuse leaf apex and pockets in vein-angles | 2. <i>Anisocycla</i> |
| * Moist forest plants, with up to 1 cm long apiculus | 1. <i>Albertisia</i> |

1. ALBERTISIA

Albertisia undulata (Hiern) Forman

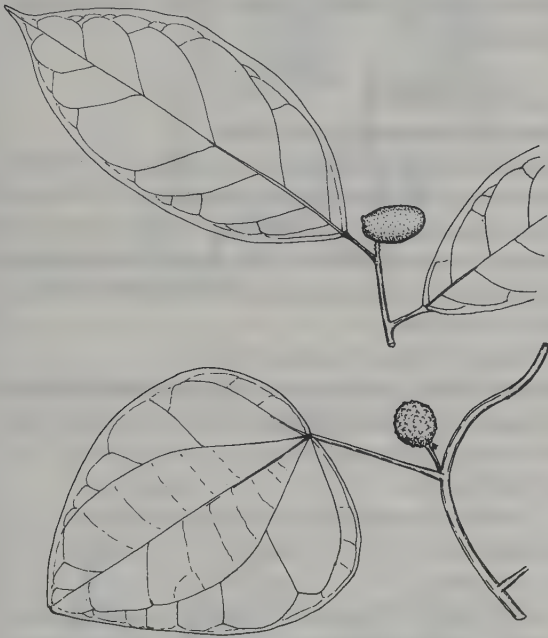
Liana. Leaves elliptic or slightly obovate, base rounded, apex rounded and apiculate for up to 1 cm, 4-9 by 3-

5cm, glabrous. Only male flowers known, these in short, dense cymes of 2-4 sessile flowers; petals 0.5 mm long. Fruit unknown.

K7; 50-450m; -*

Collected (NMK Mrima/Dzombo Exp. 218 & 311) in forest on Dzombo, and Marenji (Luke & Robertson 1745).

Albertisia undulata



Anisocycla blepharosepala

2. ANISOCYCLA

Anisocycla blepharosepala Diels ssp. *tanzaniensis* Vollesen

Climber. Leaves simple, elliptic to ovate, base obtuse, apex obtuse (mucronate), 5-13 by 4.5-11.5cm, with obvious pockets in the angles of the 2-4 veins and yellowish hairs. Flowers blackish when dry, in 4-6-flowered extra-axillary corymbs; sepals 9-24 in number; petals 6 in number, ca 1mm long, slightly fleshy. Fruit almost round, 15-18 by 10mm.

K7; 1-150m; ?*

Vitengeni, Witu, Mangea, Tana R. Primate Reserve.

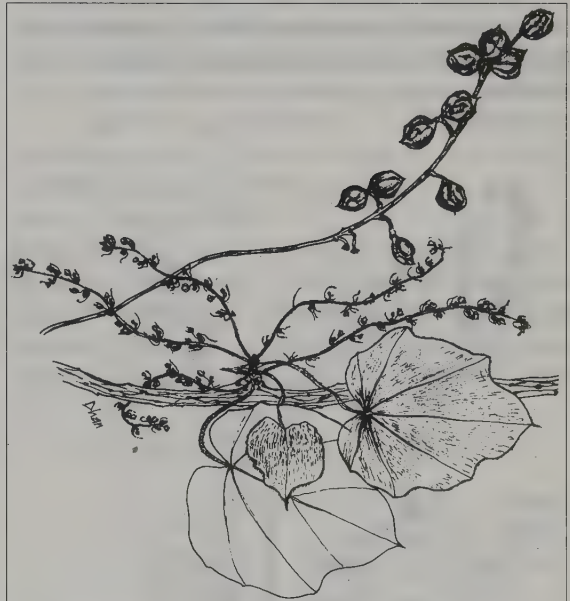
3. CHASMANTHERA

Chasmanthera dependens Hochst.

Liana (to at least 10m?). Older branches with flaking bark. Leaves broadly ovate, base deeply cordate, apex acuminate or mucronate, 4-20 by 4-20cm, velvety to densely pubescent; venation palmate. Flowers yellow-green on hanging (false) racemes 10-30cm long; male flowers 2-3.5mm, female flowers 1.5-2mm. Fruit orange, ovoid, 10-15mm long.

K12347; 600-1200m; III-V, VIII, XI *

In dry country on rocky outcrops and along luggas. Kugiei (KAM), Pulomnyon (PKT). Pokot consider the stem edible.

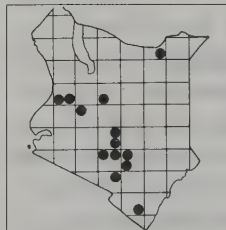


Chasmanthera dependens

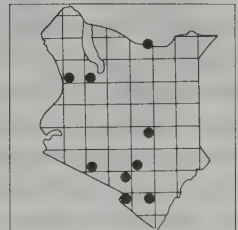
4. COCCULUS

1. Leaves tomentellous; basal veins 5

1. *C. hirsutus*



Chasmanthera dependens



Cocculus hirsutus

- * Leaves glabrous or sparsely puberulous; basal veins 3
2. *C. pendulus*

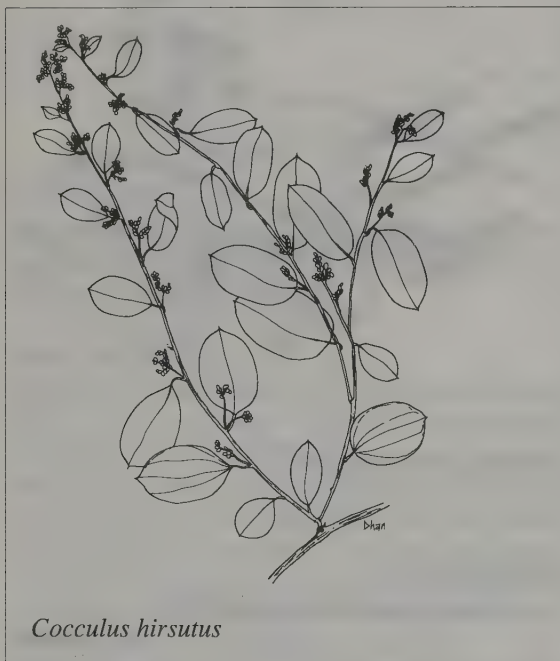
1. *Cocculus hirsutus* (L.) Diels

Liana to at least 5m. Leaves of two kinds; near the base 3-5 lobed, base rounded or subcordate, to 9 by 7cm; other leaves elliptic or (ob)ovate, base cuneate or rounded, apex obtuse and mucronate or rounded, 4-6 by 1-4cm, densely tomentellous but less so at maturity. Flowers yellow-green in cymes 0.5-2.5mm long, male flowers 1.5-2.5mm, female flowers 0.5-1mm long. Fruit pink, ovoid, 4-8 by 4-5mm.

K12467; 500-1150m; III, V-VI, VIII, X *

Dry bushland, often on rocky hills; also riverine.

Nyamili (ILW), Olyeniyeni (MAA), Lokitoe-Kayep (TUR). A leaf infusion is used against stomachache by Turkana.

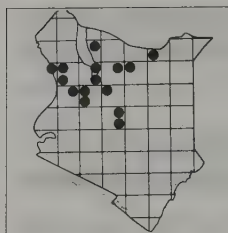


2. *Cocculus pendulus* (J.R. & G. Forst.) Diels

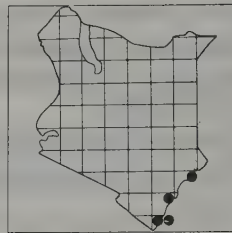
Liana 0.5-10m. Leaves ovate or elliptic, base cuneate or rounded, apex obtuse and mucronate, 1-5 by 0.5-3cm, glabrous or sparsely puberulous. Flowers yellow-green, in small cymes to 2cm; flowers 0.5-2mm. Fruit red to black, round or ovoid, 4-7 by 4-5mm.

K12(4); 350-1500m; I, III-IV, VI-VII, X *

In dry areas, usually riverine, along luggas, near wells,



Cocculus pendulus



Jateorhiza palmata

or on lakeshores.

Marma (BON), Lokitoe-Kayep (TUR). Wood infusion emetic.

5. JATEORHIZA

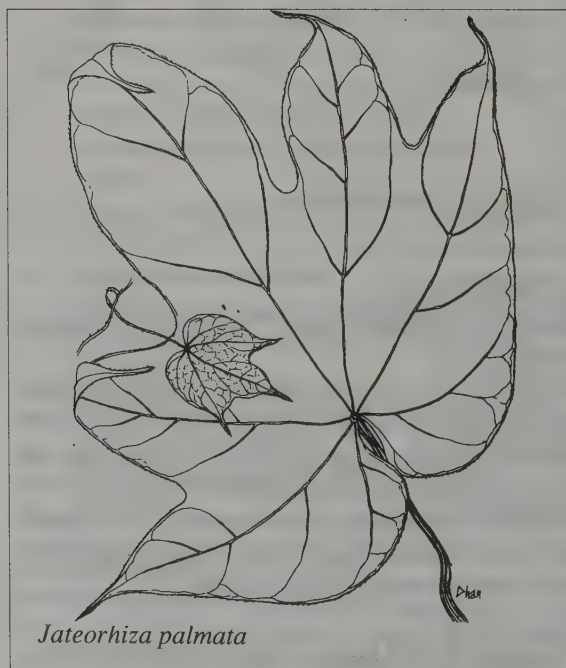
Jateorhiza palmata (Lam.) Miers

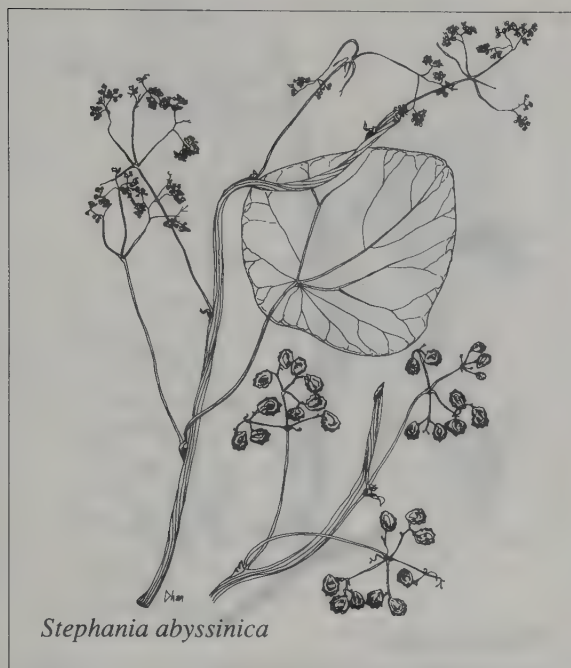
Liana or herbaceous climber 2-5m. Leaves 3-5-lobed, base deeply cordate, apices acuminate, 9-35 by 10-40cm, sparsely hairy. Flowers greenish or white, in hanging inflorescences to 10(female) or 40(male)cm long; flowers 2.5-3.5mm long. Fruit 2-2.5 by 1.5-2cm.

K7; 1-200m; II *

Evergreen forest or riverine forest.

Babbara (BON), Mkaumwa (SWA). A root decoction is used as stomach medicine.





6. STEPHANIA

Leaves peltate. Inflorescence of false umbels.

1. Stems woody or herbaceous; inflorescences on leafy stems **1. *S. abyssinica***

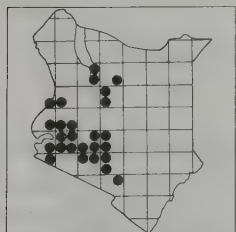
- * Stems succulent; inflorescences on leafless stems **2. *S. cyanantha***

1. *Stephania abyssinica* (Dillon & A.Rich.) Walp.

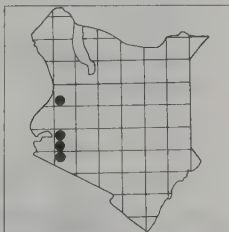
Liana, woody at base, 2-3m (presumably more!). Leaves peltate, broadly ovate, base round, apex obtuse or acute, 5-15 by 4-12cm, glabrous (var. *abyssinica*) or tomentellous [var. *tomentella* (Oliv.)Diels]. Flowers cream or reddish, in false compound umbels; flowers 1-2.5mm long. Fruit yellowgreen or pinkish green, round, 5-8mm.

K13456; 1450-3300m; I-VIII, X-XII

Foerst margins, riverine, bamboo and *Hagenia* zone,



Stephania abyssinica



Stephania cyanantha

secondary bush or grassland.

Tabarariet, Labororiet (KIP), Oloiyobo-Igeek, Ndabararia (MAA), Lokitimu (SAM), Lihoru (TIR). Stem fibres used in basketry.

2. *Stephania cyanantha* Hiern

Succulent climber to 15m, woody at base; much like *S.abyssinica* except for the keyed characters. Peduncle of inflorescence very short (less than 1cm.)

K356; 1950-2400m; X *

Forest or secondary bushland.

7. TILIACORA

Leaf petiole thickened near leafbase ("pulvinus").

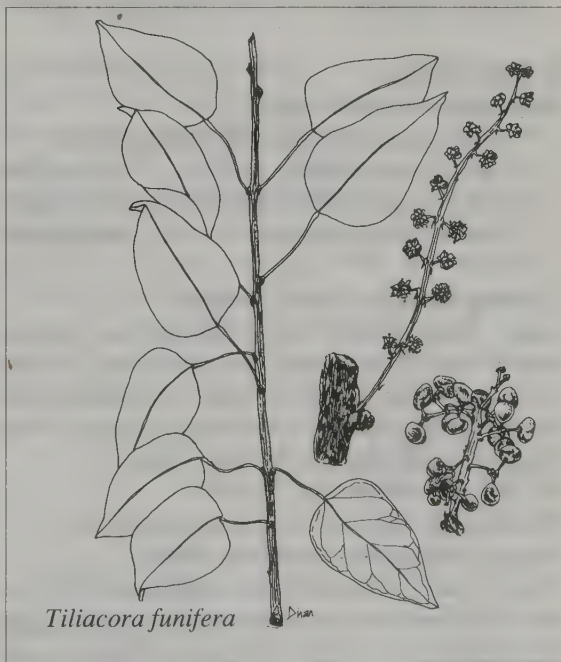
1. Petiole 1.5-5cm long; female inflorescence a spike of flower clusters **1. *T. funifera***

- * Petiole 1-2cm long; female inflorescence a spike of single flowers **2. *T. kenyensis***

1. *Tiliacora funifera* (Miers) Oliv.

(incl. *T. sp.* 4 of FTEA)

Liana to 20m. Leaves ovate, base rounded or subcordate, apex acuminate, 7-16 by 3-8cm, glabrous or sparsely puberulous. Flowers greenish, in hanging (pseudo-) racemes to 25cm long from old wood; flowers 2.5mm (female) or 3.5-4mm (male). Fruit



round or obovoid, 5-7mm long.

K14567; 1-1850m; I, V, VIII, XII *

Dry or moist evergreen forest and riverine forest.

Liwongo (LUH).

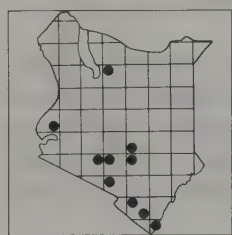
Note 1. I have included *T. sp.4* of FTEA as the cited specimen (van Someren 91) agrees in nearly all respects with typical *T. funifera*. Another collection from Emali Hill (Beentje 2509) confirms this for the flowering parts.

Note 2. A collection from Ndoto Mts. (Gilbert et al. 5531) is probably this species but differs in having obtuse leaf apices.

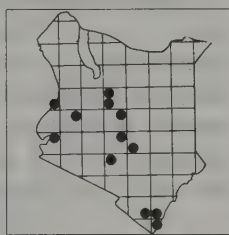
2. *Tiliacora kenyensis* Troupin

Liana, similar to *T. funifera*, but: petiole 1-2cm long (1.5-5cm in *funifera*); female flowers solitary on the spikes (in groups); sepals 12 (6-9). Fruit yellowish, obovoid, 12-14 by 6-9mm.

K5, Kakamega Forest.



Tiliacora funifera



Tinospora caffra

8. TINOSPORA

Inflorescence a false raceme.

1. Leaves broadly ovate, with deeply cordate base; inland species **1. *T. caffra***

- * Leaves ovate, with rounded to slightly cordate base; coastal species **2. *T. oblongifolia***

1. *Tinospora caffra* (Miers) Troupin

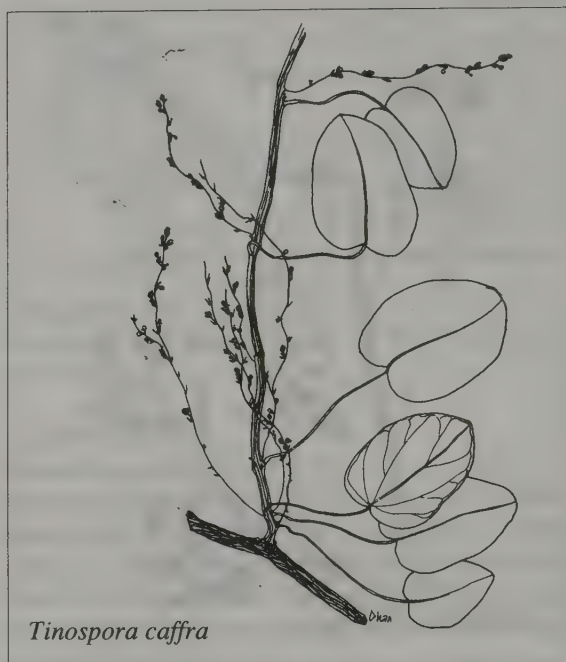
Liana. Bark of older stems often peeling. Leaves broadly ovate, base cordate, apex acuminate, 2.5-9 by 2-7cm, glabrous. Flowers white or yellowish, in slender axillary racemes 7-30cm long; flowers 2-4mm long. Fruit red, ellipsoid, 8-12 by 4-8mm.

K13457; 350-1950m; IV, IX-XII *

Woodland or bushland, usually on rocky sites.

Ithunzu Yika (KAM), Komimok (MAR).

Note. *T. bakis* (A.Rich.) Miers is reported in FTEA to have been found in a similar habitat at Ngomeni (Scott Elliot 6266, nov. 1893). The only difference with



Tinospora caffra

T. caffra would seem that the stamens are free instead of connate.

2. *Tinospora oblongifolia* (Engl.) Troupin

Liana 2-12m with aerial roots; older bark peeling. Leaves ovate, base (sub)cordate or rounded, apex acuminate, 4-11 by 2-6cm, glabrous. Flowers whitish, in axillary pseudoracemes 10-40cm long; flowers 1-1.8mm long. Fruit round or ellipsoid, 5-11 by 4-9mm.

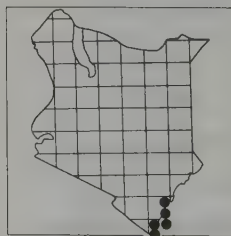
K7; 1-300m; V-VI, VIII *

Evergreen forest, often on limestone outcrops.

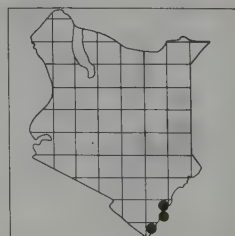
9. TRICLISIA

Triclisia sacleuxii (Pierre) Diels

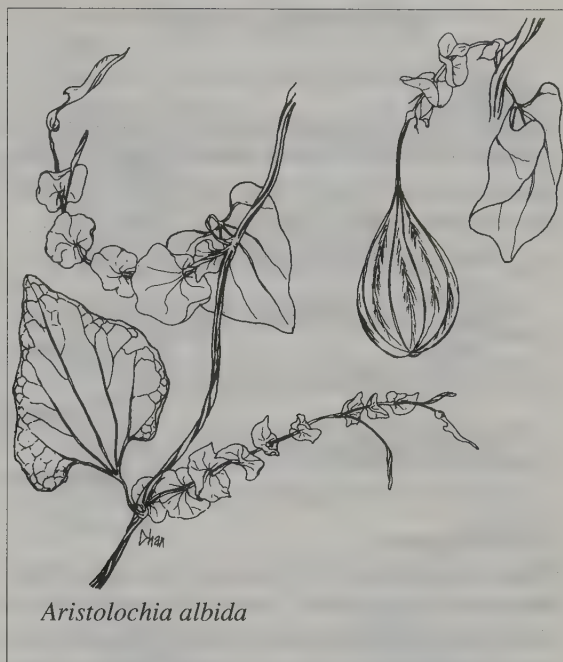
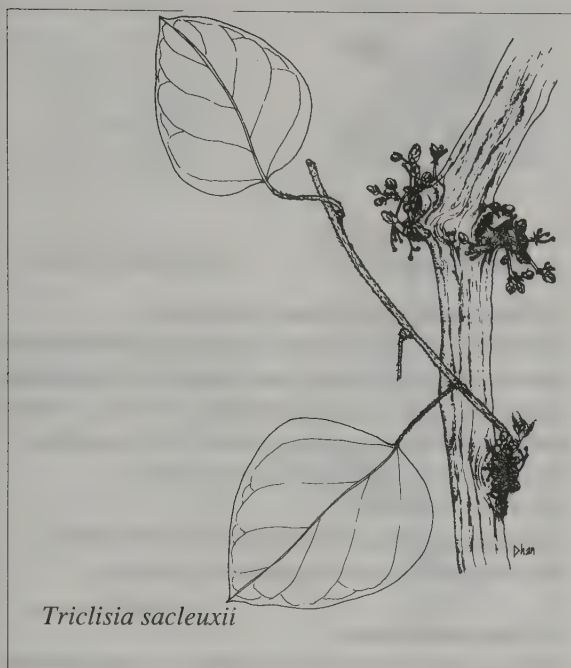
Liana 10-15m. Leaves elliptic or broadly ovate, base rounded to cordate, apex more or less acuminate, 7-18 by 6-13cm, hairy on veins beneath. Flowers pale dull



Tinospora oblongifolia



Triclisia sacleuxii



yellow, in clusters of small panicles from old wood; flowers 5-7mm long. Fruit green with brown hairs, 12-30 by 10-17mm.

K7; 50-500m; XI-XII *

Evergreen forest, usually on limestone.

Note. FTEA reports this species from Taita Hills, Mbololo (Bally 8575), but gives as maximum altitude 1200m, while Mbololo forest is 1450-1800m. I have not seen this specimen. I consider the varieties of Troupin as spurious.

24. ARISTOLOCHACEAE

Leaves alternate, 3-7-nerved from base, often with an underdeveloped axillary stipule-like leaf. Flowers axillary, irregular, with an elongated curved tube and a large limb. Stamens 6. Fruit a dehiscent capsule with 6 valves.

1. Leaves longer than wide, with acute or obtuse apex **1. *A. albida***
- * Leaves wider than long, with broadly rounded apex **2. *A. elegans***

1. *Aristolochia albida* Duchartre

Climber 1-3(10)m, with unpleasant smell. Leaves broadly ovate-triangular; base cordate, apex obtuse to acute, 2.5-20 by 1.5-14.5cm, glabrous or nearly so.

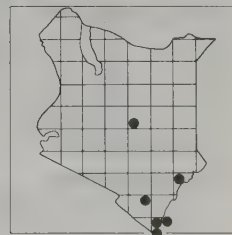
Flowers greenish near base, blackish-purple near apex, in elongate inflorescences with conspicuous bracts; corolla 2.5-5cm long. Fruit blue(-black), obovoid, 2.5-6 by 1-3cm.

K47; 1-600m; II, V-VII *

Riverine forest, bushland, forest margins.

2. *Aristolochia elegans* Mast.

Climber 2-3m, with hanging flowering branches. Leaves broadly triangular, base cordate, apex rounded, 2-8 by 3-9.5cm, glabrous. Flowers white with red-purple veins, solitary; corolla with very curved tube, 6-12cm long. Fruit sausage-shaped, 4-6 by 1-2cm. Cultivated and gone wild in Central highlands (in plantations, riverine forest).



Aristolochia albida

28. PIPERACEAE

1. PIPER

Shrubby plants with jointed nodes; leaves alternate, 5-7-veined from base; stipules adnate to petiole. Inflorescence a spike of uni-or bi-sexual flowers. Perianth (calyx/corolla) absent; stamens 2-4. Fruit a berry.

1. Erect or subscandent shrub; fruits sessile on spike
- * Climber with adventitious roots at nodes; fruits stalked
2. Flowers and fruits in solitary spikes
- * Spikes in umbels, on a common peduncle

2
2. *P. guineense*

1. *P. capense*

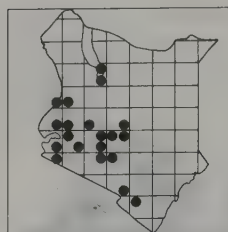
3. *P. umbellatum*

1. *Piper capense* L.

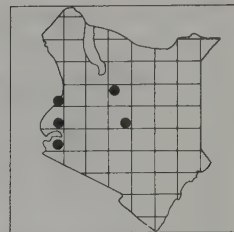
Woody herb or shrub 0.7-3m (sometimes scrambling). Stem with swollen nodes. Leaves aromatic, elliptic or broadly ovate, base cordate or rounded (cuneate), apex acuminate, 5-20 by 3-19cm, glabrous. Flowers minute, in white spikes 1-9cm long. Fruit green, about 2mm.

K1234567; 1200-2700m; I-XII

Forest or riverine forest, in moist shady places. Muraya, Suguya (KIK), Larabat (KIP).



Piper capense



Piper umbellatum

2. *Piper guineense* Schum. & Thonn.

Climber to at least 10m; stems corky-ridged near base. Leaves elliptic or ovate, base cuneate to subcordate (often unequal), apex acuminate, 7-17 by 3-9cm, glabrous. Flowers minute, yellowish (?), in spikes 2-9cm long. Fruit red, round, about 3mm.

K5; 1450-1650m; IV *

Kakamega forest and Bukura forest (anno 1943). The roots are employed against sore throat.

3. *Piper umbellatum* L.

Soft-wooded herb 1-2m, sometimes subscandent. Leaves broadly ovate, base deeply cordate, apex acute, 10-22 by 10-23cm, glabrous. Flowers white, minute, in umbels of spikes 2-8cm long. Fruit not seen.

K1345; 1150-2100m; I, III-IV, VIII, X-XII

Rainforest or moist riverine forest.

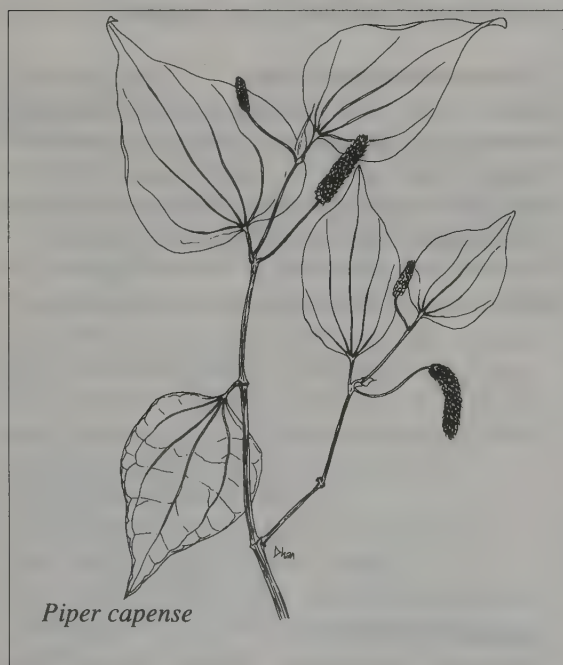
34. TURNERACEAE

Leaves alternate; stipules absent. Calyx with a tube; corolla with a tube and 5 lobes, adnate to calyx. Stamens 5. Fruit a 3-valved capsule.

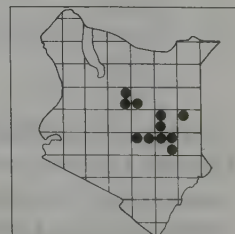
1. LOEWIA

Loewia tanaensis Urb.

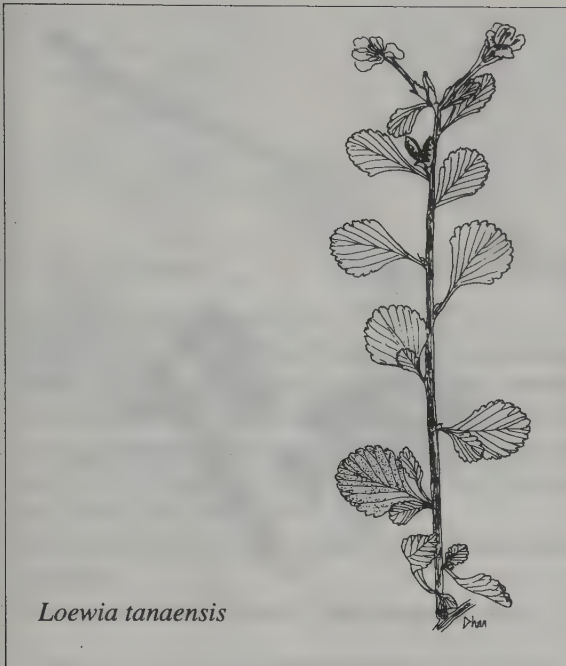
Shrub 0.5-2.5m. Leaves aromatic, mostly several together on small shortshoots, obovate, base attenuate, apex obtuse or rounded, margin serrate in upper two-thirds, 1.5-6 by 1-4cm, densely simple- and stellate-pubescent. Flowers orange, solitary, axillary; corolla 20-27mm long. Fruit (ob)ovoid, 7-10 by 5mm.



Piper capense



Loewia tanaensis



K147; 50-600m; I-II, V-VI, VIII, X-XII (V-VI, XI-XII).

Acacia-Commiphora bushland, nearly always riverine, in luggas or on alluvium. Endemic to Kenya. Mangess (SOM).

36. CAPPARACEAE

(Capparidaceae)

Leaves alternate, simple or digitately 1-5-foliolate. Stipules present, usually minute or caducous, sometimes spiny. Flowers bisexual. Sepals 3-4, or calyx entire and bursting open at anthesis; receptacle often enlarged. Petals absent, or 4. Stamens few to many, conspicuous, sometimes on an *androphore* (a stalk on which the stamens are inserted); ovary on a *gynophore* (long ovary-stalk). Fruit a capsule or berry, often torulose (narrowed between the seeds).

1. Plants armed with 2 thorns at each node

3. *Capparis*

* Plants unarmed 2

2. Petals in two pairs, one pair short and one pair long; stamens on two separate androphores; fruit round, to 10cm across, on a much thickened stalk. Leaves 3-foliolate

2. *Cladostemon*

* Petals either absent or equal; stamens on a

single androphore; fruit smaller, on a thin stalk

3

3. Flower with calyx bursting open at the top; fruit 6-12-ribbed

8. *Thylachium*

* Flower calyx with 3 or 4 separate sepals; fruit not ribbed

4

4. Leaves simple (or 1-foliolate)

5

* Leaves (at least some) 3-5-foliolate

7

5. Androphore over 5mm long; stamens 4-5. Fruit cylindrical, often glandular and with orange endocarp inside

2. *Cadaba*

* Androphore very short; stamens 4-many; fruit various

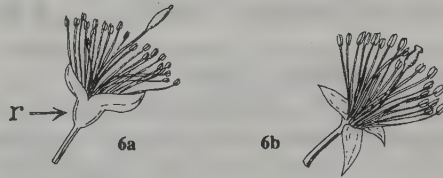
6

6. Receptacle bowl-shaped or cylindrical; petals 0 or 4; sepals 3 or 4; fruit various

6. *Maerua*

* Receptacle almost absent, petals 0; sepals 4; fruit round

1. *Boscia*



7. Receptacle very shallow; fruit round, 4-5cm across

5. *Crateva*

* Receptacle bowl-shaped or cylindric; fruits, if round, up to 4cm across

8

8. Petals 2-5mm long. Fruit round or cylindric and then to 7 by 1.5cm, slightly torulose

6. *Maerua*

* Petals 20-60mm long. Fruit ellipsoid or cylindric, 2-6 by 1.3-2cm, grooved

7. *Ritchiea*

1. BOSCIA

Inflorescence an often corymbose raceme. Sepals 4, petals absent. Stamens 4-18, as long as the gynophore. Fruit globose, indehiscent, 1-several-seeded.

1. Leaves 5-14 x as long as wide; tree with very corrugated bark

6. *B. salicifolia*

* Leaves up to 4 x as long as wide

2

2. Leaves hairy

3

* Leaves glabrous

5

3. Leaves sandpapery

3. *B. keniensis*

* Leaves softly hairy

4

4. Leaves spaced; fruit 30-50mm across; Man-

- dera district **7. *B. tomentosa***
- * Leaves spaced on young shoots, in bunches on older branches; fruit 8-15mm across; widespread **1. *B. angustifolia***
5. Leaves 3-10 by 2-4.5mm, Northern Kenya **4. *B. minimifolia***
- * Leaves larger **6**
6. Leaf apex obtuse or acute; leaves of older branches in bunches **8**
- * Leaf apex spiny; leaves spaced **7**
7. Inflorescence dense, to 3cm long; stamens 6; fruit hairy **2. *B. coriacea***
- * Inflorescence 4-7cm long; stamens 16-26; fruit glabrous **5. *B. mossambicensis***
8. Leaves narrowly elliptic, more than twice as long as wide; inflorescence > 3cm long **1. *B. angustifolia***
- * Leaves obovate, less than 1.5 x as long as wide; inflorescence < 2cm long **8. *sp. B***

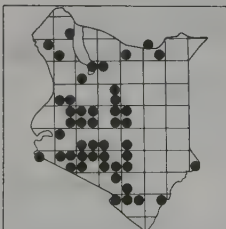
1. *Boscia angustifolia* A. Rich.

Shrub or tree 0.5-9m, evergreen; trunk massive, with silver-grey smooth bark. Leaves spaced on new shoots, in fascicles on shortshoots on older wood, elliptic to slightly obovate, base cuneate or obtuse, apex obtuse or acute, 2-8.5 by 0.5-2cm, glabrous (var. *angustifolia*) or minutely pubescent [var. *corymbosa* (Gilg) De Wolf]. Flowers cream or yellowish, in corymbose racemes to 6cm long; flower 2-5mm long. Fruit purplish, round, 8-15mm across.

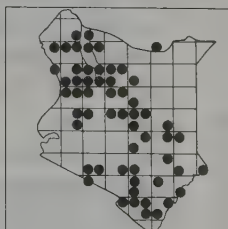
K1234567; 1-2100m; I-XII (VI, XII-I)

Dry bushland, woodland, wooded grassland; in very dry areas along luggas.

Kalkaj (BOR), Musambweke (GIR), Mulule (KAM), Lito (KIP), Ayiergweng, Bware (LUO), Oloireroi (MAA), Likwon (PKT), Lororoi (SAM), Chieh (SOM), Lito (TUG), Emejen (TUR). Used for firewood; wood used for snuff boxes by the Maasai.



Boscia angustifolia



Boscia coriacea



2. *Boscia coriacea* Pax

Shrub or tree 1-6m, evergreen. Leaves elliptic, base cuneate, apex spiny-mucronate, 3-11 by 1-3.5 cm, glabrous. Flowers white or yellowish, in dense racemes to 3cm; sepals 3-5mm long. Fruit yellow-brown, round, 10-20mm, hairy when young.

K123467; 1-1200m; I-III, V-XI

Dry bushland, in the North often along luggas or near wells.

Galcacha-Hare (BOR), Zoorich (DAS), Kalaqacha (ILW), Isivu (KAM), Engamuluki (MAA), Muthiu (EMB), Kalkalch (ORM), Nyaror (REN), Mnafisi (SWA), Ghalangai, Darkiyah, Khalanghal (SOM), Eedung (TUR), Siriko, Sorichon (TUG). Wood used for building; fruit edible when cooked.

3. *Boscia keniensis* Beentje

(*B. sp. A* of FTEA)

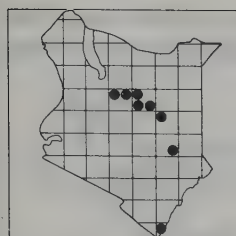
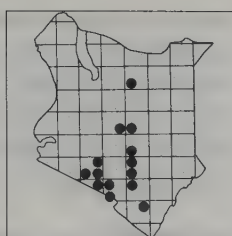
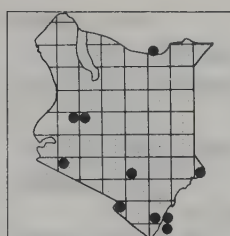
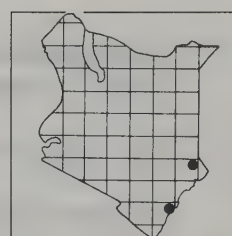
RARE

Shrub 1-3m. Leaves elliptic or narrowly ovate, base cuneate to rounded, apex acute to obtuse, 3-9 by 1-3cm, sandpapery. Flowers yellow to orange, in racemes 5-14cm long; sepals 5-9mm long. Fruit round, 13-23mm.

K17; 1-800m; I-III, VII *

Along luggas or on riverine alluvium; rarely in dry bushland away from (seasonal) water.

Qalqualch Quanchara (BOR).

*Boscia keniensis**Boscia mossambicensis**Boscia salicifolia**Boscia sp. B***4. *Boscia minimifolia* Chiov.**

Shrub or tree 4-5m. Leaves in fascicles on very short shoots, elliptic, base cuneate or obtuse, apex rounded or mucronate, 3-10 by 2-45mm, glabrous, rather blue-green. Flowers yellowgreen, in groups of 2-4 at the leaf-clusters; sepals 3-5mm long. Fruit round, 4-6mm. K1; 350-750m; IV, XII *

Collected at Dandu and El Wak, in *Acacia-Commiphora* bushland.

Damajio (BOR), Megag (SOM).

5. *Boscia mossambicensis* Klotzsch

Shrub 1-2m (or tree to 10m), evergreen. Leaves elliptic to slightly obovate, base cuneate or obovate, apex spiny-mucronate, 3.5-8.5 by 1-2.5cm, glabrous. Flowers yellow-green, in many-flowered racemes 4-7cm long; sepals 4.5-6mm. Fruit orange, round, 10-20mm.

K1467; 600-1700m; I-II, IV-V, VII-VIII, XII

Dry bushland or bushed grassland.

6. *Boscia salicifolia* Oliv.

Tree 6-8(14)m, deciduous; bark much corrugated. Leaves narrowly elliptic, base cuneate, apex acute, 0.6-20 by 0.7-3cm, more or less hairy beneath, at least on the midrib. Flowers yellowgreen, in rather dense racemes 2.5-7cm; flower 3-4.5mm. Fruit round, 15-20mm.

K13467; 1-1350m(1800); X-XII *

Dry woodland or bushland.

Mtsonga-Mbanga (DUR). A bark decoction is used by Pokot against backache.

7. *Boscia tomentella* Chiov.

Tree 7-10(20)m with round crown; bark smooth. Leaves slightly ovate, base rounded, apex rounded or slightly emarginate, 2.5-6 by 1-2.8cm, shortly appressed-pubescent. Flowers yellowgreen, in corymbose racemes (usually terminal on small shoots);

flowers 4-6mm. Fruit round, 3-5cm.

K1; 400-750m; I, XII *

Rather open bushland; collected at Tagaba and Awara (Mandera Distr.).

Galgatcha (BOR), Dosi (SOM). Fruit edible.

8. *Boscia sp. B* (Moomaw 1684 & 1687; Greenway 9813; Oxtoby EA 15389)

Shrub or tree 3.5-10.5m. Leaves fascicled on older branches, spaced on young shoots, obovate, base cuneate, apex rounded and mucronate, 10-30 by 7-13mm, glabrous. Flowers green or yellowgreen, in many-flowered racemes from the leaf-fascicles, 1-2cm long; flowers 2-2.5mm. Fruit not seen.

K17; 1-150m; I, III, VIII *

Deciduous or evergreen bushland or *Brachystegia* woodland.

2. CADABA

Flowers in terminal racemes, or axillary in bunches, or solitary. Sepals 4; petals absent or 4, usually much narrowed towards their base. The ovary is carried on the *gynophore*; stamens often carried on an elongated androphore which often has a coloured appendage, looking like a petal. Fruits cylindrical, often constricted between seeds, often red inside.

1. Leaves glabrous or nearly so (on veins and midrib some hairs or glands may be present) 2

* Leaves uniformly glandular or scaly 6

2. Leaves less than 2x as long as wide 3

* Leaves more than 3x as long as wide; Mandera area 7. *C. longifolia*

3. Petiole 0-2mm; fruit + glabrous; stamens 3-4; Voi area 12. *C. stenopoda*

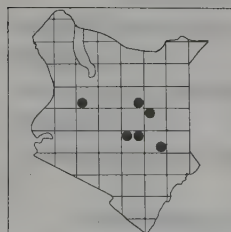
* Petiole 3mm or more; fruit glandular or hairy; stamens 5 4

4. Young branches glabrous; petals absent, appendage of androphore 6-9mm long

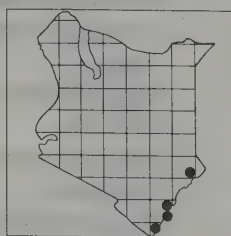
- 4. *C. gillettii***
- * Young branches densely glandular; petals present, or appendage more than 15mm long **5**
5. Petals present; fruit with large stalked glands **8. *C. mirabilis***
- * Petals absent; fruit puberulous **10. *C. rotundifolia***
6. Young branches densely covered with white scales **7**
- * Young branches glandular or hairy **9**
7. Petals absent; Isiolo (fruit unknown) **9. *C. parvula***
- * Petals present, 6-13mm long **8**
8. Petals 10-13mm long; stamens 3-4; fruit scaly **3. *C. farinosa***
- * Petals 6-7mm long; stamens 5; fruit glandular **6. *C. heterotricha***
9. Young branches pubescent; leaf apex often short-acuminate **11. *C. ruspolii***
- * Young branches glandular; leaf apex rounded or mucronate **10**
10. Leaves glandular **11**
- * Leaves whitish-scaly **3. *C. farinosa***
11. Sepals unequal: outer 10-17mm, inner 3-7mm long; fruit scaly (coast) **2. *C. carneo-viridis***
- * Sepals equal; fruit with stalked glands **12**
12. Petiole 1-3mm long; stamens 3-4 **1. *C. barbiger***
- * Petiole 2-20mm long; stamens 5 **13**
13. Petals absent; fruit 7-20mm long **5. *C. glandulosa***
- * Petals 12-18mm long, not narrowed at base; fruit 20-30mm long **8. *C. mirabilis***

1. *Cadaba barbiger* Gilg

Shrub 2-2.5m (once reported as scrambling). Leaves elliptic, base rounded, apex slightly emarginate, 1-4 by 0.7-2.4cm, sparsely glandular-hairy. Flowers cream,



Cadaba barbiger



Cadaba carneo-viridis

in few-flowered racemes; petals 10-12mm long. Fruit cylindrical, 11-21 by 3-5mm, splitting to show orange endocarp, glandular.

K17; 250-600m; I, III, V-VI *

Deciduous bushland or riverine thicket.

Note: this might be a variety of *C. farinosa*.

2. *Cadaba carneo-viridis* Gilg & Bened.

Shrub 1-3m, sometimes climbing. Leaves elliptic, base rounded, apex rounded, 2-7.5 by 1-6cm, densely glandular. Flowers orange or yellow, in dense racemes to 6cm long; petals 10-13mm long. Fruit cylindrical, 20-50 by 2-3mm, densely scaly.

K7; 1-250m (see note); IV, X-XI *

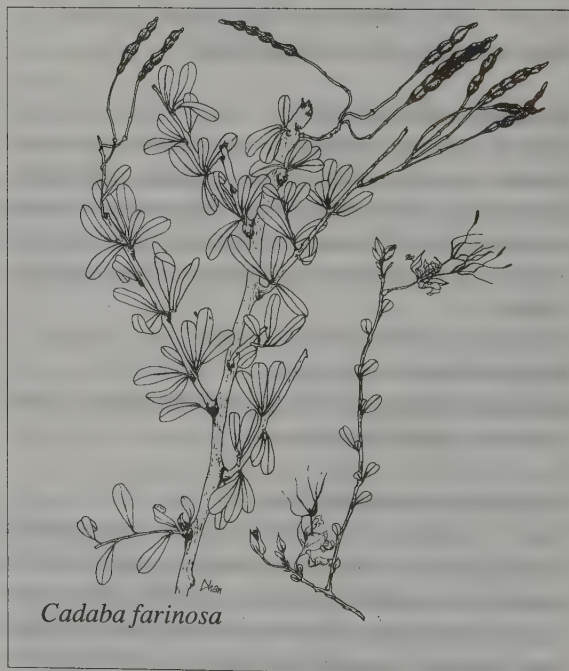
Evergreen, often secondary, bushland.

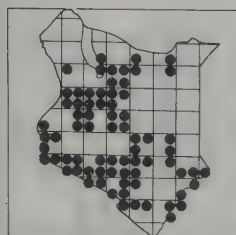
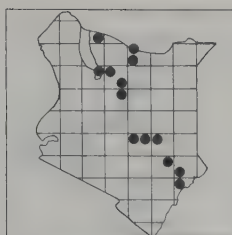
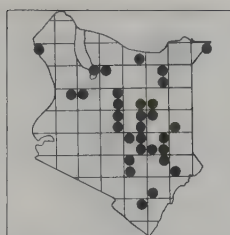
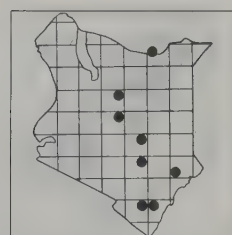
Note: The maximum altitude of 600m given in FTEA is based on Ossent 113 from Voi, a mixed gathering. I have disregarded this sheet.

3. *Cadaba farinosa* Forssk.

(incl. *C. adenotricha* Gilg & Bened.)

Shrub 1-4m (rarely tree to 7.5m), occasionally climbing; densely twiggy and sometimes called spiny. Leaves usually elliptic, base cuneate to rounded, apex obtuse and mucronate, 0.3-4(6) by 0.2-2(3)cm, farinaceous (white-scaly). Flowers yellowgreen, in few-flowered



*Cadaba farinosa**Cadaba gillettii**Cadaba glandulosa**Cadaba heterotricha*

racemes; petals 10-13mm long. Fruit cylindrical, 2-7.5mm, farinaceous, orange inside.

K1234567; 1-1900m; I-XII(I, III, VI-XI)

Dry (*Acacia*) bushland, subdesert scrub, bushed or wooded deciduous grassland and woodland; also in riverine thickets, in coastal thicket, and coastal bushland.

-ssp. *farinosa* : young twigs densely scaly.

-ssp. *adenotricha* (Gilg & Bened.) R.A. Graham: young twigs with stalked glands.

Keunya (BON), Dekoku (BOR), Deekuku (GAB), Kalaqacha (ILW), Porowet Ap Teta (KIP), Olamalogi (MAA), Kalkalch-hare, Kate-gurati (ORM), Aarenyon (PKT), Geikuku (REN), Larasoro (SAM), Dumei, Galgnal, Tukh (SOM), Kibilazi-Mwitu, Mvunja-Vumo (SWA), Msimaguare (TAI), Birirwet (TUG), Eireng (TUR). A prized browse plant of giraffe, elephant and cattle; a root infusion is used against STD and roots are eaten raw as a remedy against chest colds by the Turkana.

4. *Cadaba gillettii* R.A. Graham

Shrub 1-3m. Leaves blue-green, succulent, broadly ovate to almost round, base rounded or subcordate, apex rounded or emarginate, 2-4 by 1.5-3.3cm, glabrous. Flowers red, in bunches of 1-3 in the upper leaf axils; petals absent, but red androphore-appendage 6-9mm long. Fruit cylindrical, 2-4.5cm long, about 5mm wide, short-pubescent.

K17; 1-1050m; I, III-V, VII-X, XII *

Deciduous (*Acacia-Commiphora*) bushland or bushed grassland, often near rivers or on black cotton soil.

Gadu (BOR), Allakal (ORM), Kish (SOM), Eakak (TUR).

5. *Cadaba glandulosa* Forssk.

Shrub 0.3-2(3)m; usually less than 1m high and up to 2m across. Leaves broadly elliptic to round, base rounded or subcordate, apex rounded or apiculate, 8-

26 by 6-26mm (usually quite small), densely glandular with sessile and stalked glands. Flowers yellow to orange, in few-flowered corymbs; petals absent, androphore appendage 8-17mm long. Fruit ellipsoid, 7-20 by 5-6mm, densely glandular.

K1247; 50-1550m; I-VIII, X-XII (I-II, VII-VIII)

Acacia bushland or -bushes grassland, very often on seasonally flooded soils or along rivers.

Damacho, Dugh (BOR), Tuk (ORM), Emakak (TUR), Dugh-Dukhul (SOM). An infusion of the roots is used as a purgative by the Turkana; the foliage is appreciated by camels, as it contains salt.

6. *Cadaba heterotricha* Hook.

Shrub or tree 2-9m with slightly fluted bole; bark smooth, dark grey. Leaves broadly obovate to almost round, base cuneate to rounded, apex rounded to emarginate, 1.5-4 by 1-3.2cm, densely *stellate*-scaly. Flowers white, several per dense corymb; petals 6-7mm long. Fruit cylindrical, 10-25 by 2-3mm, densely glandular.

K147; 50-850m; I-III, XI-XII *

Acacia bushland, or bushed/wooded grassland.

Duse (BOR).

7. *Cadaba longifolia* DC.

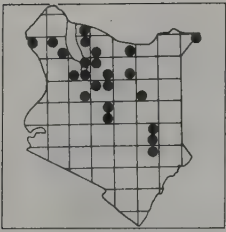
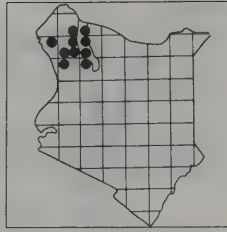
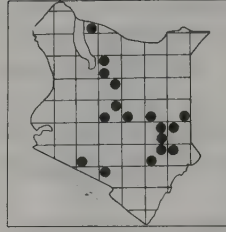
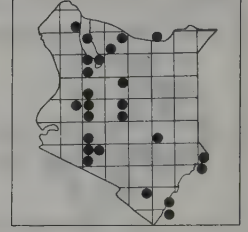
Shrub or tree 1-5.5m. Leaves narrowly elliptic, base obtuse, apex acute or obtuse, 3-9 by 0.8-1.2cm, glabrous. Flowers orange or yellow, in rather dense short corymbs; petals 10-16mm long. Fruit cylindrical, 15-22 by 2-5mm, glandular.

K1; collected once at Buramayo hill near Mandera at 450m.

Acacia-Commiphora bushland.

8. *Cadaba mirabilis* Gilg

Shrub 0.1-3m. Leaves broadly ovate, elliptic or almost round, base rounded or subcordate, apex rounded, 1.5-4 by 1-4cm, glabrous to densely glandular, or sandpa-

*Cadaba mirabilis**Cadaba rotundifolia**Cadaba ruspolii**Capparis cartilaginea*

pery. Flowers white and yellow in short corymbs; petals 12-18mm long, not narrowed at base. Fruit cylindrical, 20-30 by 3-6mm, densely glandular with thick-stalked glands.

K1247; 200-1100m; I-XII (V)

Deciduous bushland and semi-desert scrub, often near luggas, wells and rivers.

Qatu, (H)afursaa, K'adu (GAB), Emakak (TUR).

9. *Cadaba parvula* Polhill ? EXTINCT

Shrub about 1.5m. Leaves elliptic, base cuneate, apex rounded, 6-14 by 4-6mm, *farinaceous*. Flowers yellowgreen, few per raceme; petals absent, appendage 2-4mm. Fruit unknown.

Collected once near Isiolo, 1000m alt.; VI *

Deciduous bushland ?

10. *Cadaba rotundifolia* Forssk.

Shrub 0.7-3m. Leaves broadly ovate to almost round, base rounded to subcordate, apex obtuse to emarginate, 2-5.5 by 1.5-5.5cm, glabrous or puberulous on the veins beneath. Flowers yellow, in dense short corymbs; petals absent, androphore-appendage about 2cm long, the upper half elliptic. Fruit cylindrical, 25-52 by 5-6mm, densely puberulous.

K12; 350-600m; I-III, V-VIII, X-XI (VII)

Deciduous bushland along luggas; also riverine and along lake Turkana.

Alung (DAS), Epuu (TUR).

11. *Cadaba ruspolii* Gilg

Shrub (rarely tree) 1-4m, evergreen. Leaves elliptic or ovate, base obtuse to subcordate, apex obtuse or (usually) shortly acuminate, margin wavy, 2-5 by 1-3.5cm, sandpapery because of many scales. Flowers white, cream or pale yellow, in short racemes; petals 7-12mm long. Fruit ellipsoid, 8-12 by 4-5mm, densely glandular.

K1467; 50-1050m; I-II, IV-VII, XI-XII (XII,I)

Deciduous (*Acacia*) bushland or bushed grassland and semi-desert scrub.

Ilqabat (BÖR), Ilkabath (ORM), Ilkabata (SOM).

12. *Cadaba stenopoda* Gilg & Benedict

Shrub 0.3-2m, much-branched. Leaves broadly elliptic, base cuneate to rounded, apex obtuse to rounded, 1-4 by 0.6-3.2cm, glandular on midrib beneath. Flowers cream, in short open racemes; petals 10-12mm long, very narrow. Fruit cylindrical, 10-25 by 2-3mm, glabrous or with a few glands.

K7; 350-600m; I, VII, IX-X *

Riverine (Voi and Tsavo rivers) in shade.

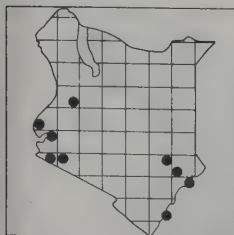
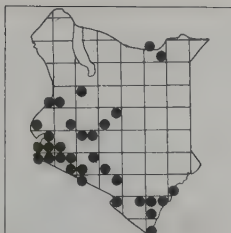
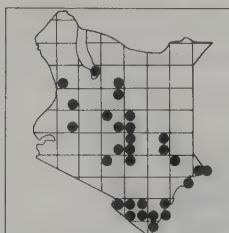
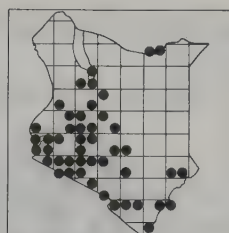
3. CAPPARIS

Thorns present, in pairs at the nodes, recurved. Sepals and petals 4; gynophore present. Fruit a berry.

1. Flowers solitary, in leaf-axils; fruit longer than wide 2
- * Flowers in groups, axillary or terminal; fruit round 3
2. Leaf apex with small recurved spine; petals unequal; fruit stalk 3-6cm 1. *C. cartilaginea*
- * Leaf apex not spiny; petals equal; fruit stalk 1-2cm 2. *C. erythrocarpos*
3. Flowers/fruits in axillary fascicles 4
- * Flowers/fruits in terminal racemes 5
4. Leaf-apex obtuse or emarginate; filaments 2-10mm long 3. *C. fascicularis*
- * Leaf-apex short-acuminate; filaments 15-30mm long 6. *C. viminea*
5. Fruit 7-12mm across; stamens 7-14mm, petals 5-8mm long 4. *C. sepiaria*
- * Fruit 15-65mm across; stamens 20-35mm, petals 15-25mm long 5. *C. tomentosa*

1. *Capparis cartilaginea* Decne.

Shrub 0.5-3m, often creeping among rock. Leaves fleshy, broadly elliptic to almost round, base cordate to

*Capparis erythrocarpos**Capparis fascicularis**Capparis sepiaria**Capparis tomentosa*

obtuse, apex acute to rounded with a tiny recurved spine, 2-6.5 by 2-6.5cm, glabrous. Flowers white or pink, drying mauve, solitary and axillary; petals unequal, the largest 2.5-3.5cm long. Fruit red, ellipsoid, 4-7.5 by 2-4cm, ribbed.

K123467; 1-1950m; I-XII

At the coast on coral rock or on old ruins; inland nearly always on lava or rock, in dry bushland, often along luggas, rivers, lakes or wells.

Gorra (BOR), Qadhu (GAB), Olatunde (MAA), Chepteretwa (MAR), Ilngorochi/Leachar (SAM), Lokapilak (TUR).

2. *Capparis erythrocarpos* Isert

[*C. rosea* (Klotzsch) Oliv.]

(Climbing) Shrub 1-3m. Leaves elliptic, base obtuse (and sometimes slightly cordate as well) to slightly cuneate, apex obtuse with a mucro, 3-8.5 by 1-4.5cm, glabrous. Flowers white or yellowgreen, solitary and axillary; petals 2-3cm long. Fruit red, ellipsoid, 3-5cm by 15-30mm, ribbed.

K3567; 1-150(coast) and 1100-1800m; II-III, VIII-V, XII *

Bushed or wooded grassland, often along rivers; on the coast *var. rosea* (Klotzsch) De Wolf in bushed grassland or forest margins.

Mudzedza-Gunga (GIR).

3. *Capparis fascicularis* DC.

[*C. elaeagnoides* Gilg, *C. scheffleri* Gilg & Bened.]

Climbing shrub, 2-4(10)m. Leaves narrowly elliptic, base cuneate to rounded and slightly subcordate, apex obtuse to emarginate, 2-10 by 0.5-3.5cm, puberulous (glabrous). Flowers white, in several-flowered axillary fascicles; petals 4-7mm long. Fruit green to red, round, 1-2cm across.

K1234567; 1-2100m; I-II, V-XII

Deciduous bushland, riverine thickets, bushed- or wooded grassland.

Gura Gala (BOR), Kiptablelet (KIP, LUM), Olaturudei, Olaturdei (MAA), Gora (ORM, SOM), Larenday, Laturidei (SAM), Ekaburu (TUG), Kakabuiwo (TUG). Described as poisonous by Maasai, who do use fruits and roots in medicine against colds.

Note: De Wolf in FTEA distinguishes several varieties; I prefer to see this taxon as a single, variable species.

4. *Capparis sepiaria* L.

(*C. citrifolia* sensu KTS, *C. fischeri* Pax, *C. stuhlmannii* Gilg)

Shrub, often scrambling, 1-4.5m. Leaves elliptic or (ob-) ovate, base rounded to subcordate, apex rounded and emarginate, 1-7 by 0.7-4cm, glabrous to pubescent. Flowers white or pink in many-flowered terminal corymbs; petals 5-8mm long. Fruit red, round, 7-12mm.

K12347; 1-1450m; I-XII (VIII, XI)

Riverine thickets, deciduous bushland, wooded- or bushed grassland, forest margins, coastal thicket.

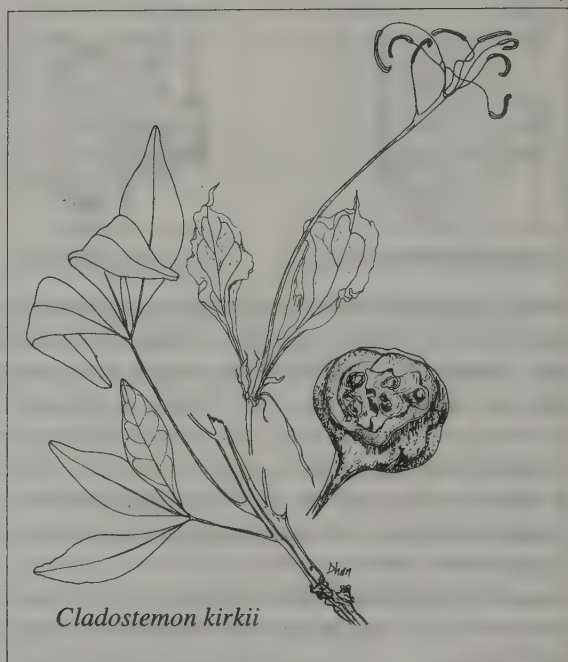
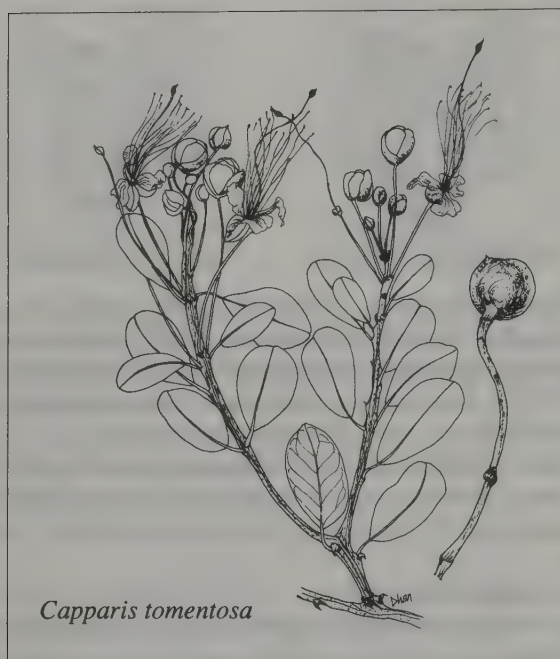
Nothake (BON), Muthandambogo (EMB), Mugwanda-Paka (GIR), Rhemanguzi (ILW), Itandambo (KAM), Gora (ORM), Lakirdinga (SAM), Gora, Gedh Chala (SOM), Mpapura-Chui (SWA). Roots said to be extremely poisonous, but also used medicinally against chest colds.

Note: as in *C. fascicularis*, I am treating this as a single variable species.

5. *Capparis tomentosa* Lam.

Scrambling shrub or woody climber 0.5-12m, evergreen. Leaves elliptic or (ob-) ovate, base cuneate to rounded (slightly subcordate), apex acute or rounded and emarginate, 1.5-9 by 1-4cm, pubescent or glabrous. Flowers white to yellowgreen, in terminal racemes; petals 15-25mm long. Fruit red, with pink flesh, round, 1.5-6.5cm.

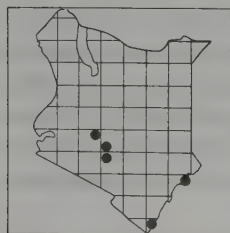
K1234567; 1-2100m; I-XII (X)



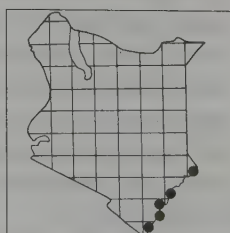
Riverine woodland or -bushland, woodland, bushed grassland, wooded grassland, secondary bushland. Gorrah-Gel (BOR), Mzezagunga (GIR), Gora-nyilo, Gora za jovu, Namwaliko (ILW), Kitandamboo (KAM), Shikumbumbu (LUH), Ongono (LUO), Olaturdei (MAA), Muchovi (PKM), Tipoyuo (PKT), Mbada Paka (SWA), Gombor Lik (SOM), Wangombe (TAI), Ekorokorait (TUR). Fruits said to be poisonous, especially to camels. A root infusion is emetic and/or purgative.

6. *Capparis viminea* Oliv. var. *viminea*

Scrambling shrub 2.5-5m. Leaves ovate, base rounded, apex short-acuminate, 3-12 by 1.5-6cm, glabrous. Flowers (greenish-)white, 1-3 per leaf-axil; petals 5-16mm long. Fruit red, round, 10-17mm. K47; 1-1950m; III, IX-X *



Capparis viminea



Cladostemon kirkii

Evergreen coastal forest or riverine forest. Mutonda Mbogo (KIK). The roots are possibly poisonous.

4. CLADOSTEMON

Leaves 3-foliate. Sepals 4; petals 4, 2 small and 2 quite large. Stamens in two groups, one rather short, the other on a long androphore partly surrounding the gynophore. Fruit large, with a very thick stalk.

***Cladostemon kirkii* (Oliv.) Pax & Gilg**

Shrub or tree 2-6m. Leaflets elliptic, apex rounded to acuminate, 4-14 by 2-9cm, glabrous. Flowers white or yellow, with a purple androgynophore, in terminal racemes; larger petals 3-8 by 2-4cm. Fruit round, 6-10cm across, on a thick stalk.

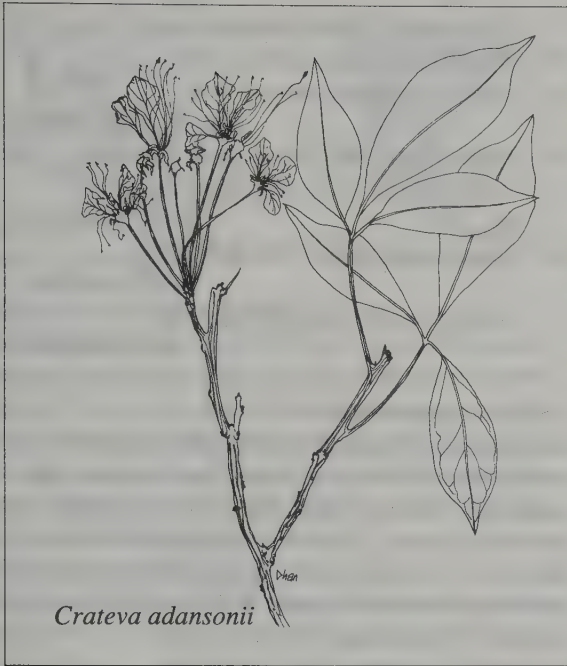
K7; 1-500m; II-IV *

Dense bushland or coastal thicket.

Keborr (BONI), Mbambamaye (GIR), Mtubakeru (SWA). A leaf infusion is used by the Boni for disinfecting wounds.

5. CRATEVA

Leaves 3-foliate. Sepals 4; petals 4. Androphore very short.

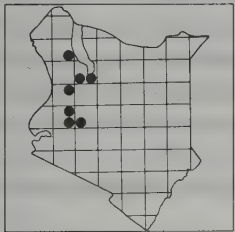
***Crateva adansonii* DC.**

Tree 3-12m, deciduous. Leaves with the leaflets elliptic, apex acuminate, 2-10 by 1-4cm, glabrous. Flowers white, in terminal or lateral racemes; petals 10-30mm long. Fruit yellowish, round, 2.5-5cm.

K123; 550-1500m; III-IV, VIII, X-XI *

Riverine forest or -woodland.

Chiesamiss (SEB), Nagarida, Koleonik (TUG), Eiyoroit (TUR). Seeds edible; wood used for implements by the Turkana.



Crateva adansonii

6. MAERUA

Leaves simple or 3-foliate. Sepals 3 or 4; receptacle clearly present, often visible as a small disk inside the flower. Petals 4 or 0. Stamens free, few to many. Androphore absent, or short. Gynophore present, as long as the stamens. Fruits round, ellipsoid or cylindrical, often torulose.

- | | | |
|-----|---|----------------------------|
| 1. | Leaves absent at flowering stage | 18. <i>M. sp. A</i> |
| * | Leaves present | 2 |
| 2. | Leaves 3-foliate, or both 3-foliate and simple | 3 |
| * | Leaves simple | 5 |
| 3. | Sepals 12-20mm long; stamens 40-50; fruit 2.5-4cm across | 9. <i>M. holstii</i> |
| * | Sepals 5-10mm long; stamens 10-30; fruit 0.5-2cm across | 4 |
| 4. | Fruit 15-20mm across; leaves more or less linear, 2-4 by 0.2-0.9cm | 8. <i>M. grantii</i> |
| * | Fruit 5-15mm across; leaves 1.5-10 by 0.5-5cm | 17. <i>M. triphylla</i> |
| 5. | Leaves (slightly) sandpapery to the touch | 6 |
| * | Leaves smooth, not rough | 8 |
| 6. | Petals absent; leaves 0.8-6cm long; petiole 0-2mm | 7 |
| * | Petals present, 5-8mm long; leaves 6-19cm long; petiole 3-5mm | 11. <i>M. kirkii</i> |
| 7. | Fruit not beaked; leaf apex obtuse or emarginate | 5. <i>M. denhardtiorum</i> |
| * | Fruit beaked; leaf apex with a recurved spiny mucro | 13. <i>M. mungaii</i> |
| 8. | Flowers present | 9 |
| * | Fruits present | 22 |
| 9. | Petals absent | 10 |
| * | Petals present | 13 |
| 10. | Petiole 1-3cm long | 1. <i>M. angolensis</i> |
| * | Petiole less than 1cm long | 11 |
| 11. | Leaves 4-11 by 2-4mm; sepals about 5mm long | 16. <i>M. sessiliflora</i> |
| * | Leaves 8-40 by 3-28mm; sepals 6-13mm long | 12 |
| 12. | Flowers among bunched leaves on older branches | 3. <i>M. crassifolia</i> |
| * | Flowers axillary to spaced leaves | 4. <i>M. decumbens</i> |
| 13. | Sepals 22-27mm long | 2. <i>M. calantha</i> |
| * | Sepals less than 18mm long | 14 |
| 14. | Stamens 6-10; sepals 4-5mm long | 15 |
| * | Stamens more than 15 (rarely <15 in <i>M. triphylla</i>); sepals more than (5)6mm long | 16 |
| 15. | Leaves in bunches; petiole 1-1.5mm | 10. <i>M. kaessneri</i> |
| * | Leaves spaced; petiole 4-10mm | 7. <i>M. glauca</i> |
| 16. | Petiole more than (5)10mm long; ovary more or less round | 17 |
| * | Petiole < 5mm long; ovary cylindrical | 18 |

17. Leaves almost linear, 2-4 by 0.2-0.9cm; ovary beaked **8. *M. grantii***
 * Leaves usually wider; ovary not beaked **17. *M. triphylla***
18. Leaves in bunches, 4-15 by 2-6mm **19**
 * Leaves spaced, usually larger **20**
19. Sepals hairy **15. *M. parvifolia***
 * Sepals glabrous except for the margins **6. *M. endlichii***
20. Receptacle 2-5mm long; petiole 5-30mm **17. *M. triphylla***
 * Receptacle 5-12mm long; petiole 1-5mm **21**
21. Leaves 2-6cm wide; anthers 3-4mm long **12. *M. macrantha***
 * Leaves 0.2-1.2cm wide; anthers 1-2.5mm long **14. *M. oblongifolia***
22. Fruits round or ellipsoid **23**
 * Fruits cylindrical in outline **28**
23. Fruit smooth (unknown for **6. *M. endlichii***) **24**
 * Fruit more or less warty **26**
24. Leaves in bunches; petiole 1-1.5mm **10. *M. kaessneri***
 * Leaves spaced; petiole more than 2mm **25**
25. Fruit 5-15mm across; leaves glabrous or pubescent **17. *M. triphylla***
 * Fruit 15-30mm across; leaves glabrous **4. *M. decumbens***
26. Leafbase cuneate **27**
 * Leafbase rounded or subcordate (**7. *M. glauca***, **14. *M. oblongifolia***, **17. *M. triphylla***)
27. Mature fruit 15-20mm across **8. *M. grantii***
 * Mature fruit 5-15mm across **17. *M. triphylla***
28. Fruit of several rows of globose sections **29**
 * Fruits with seeds in 1 row **31**
29. Leaves 2-12mm wide **14. *M. oblongifolia***
 * Leaves 20-60mm wide **30**
30. Leaves papery; fruit 2-3.5cm long **2. *M. calantha***
 * Leaves fleshy; fruits to 7cm long **12. *M. macrantha***
31. Leaves in bunches, less than 16mm wide; petiole less than 3mm **33**
 * Leaves spaced, usually more than 15mm wide; petiole 5-30mm **32**
32. Fruit 6-20cm long **1. *M. angolensis***
 * Fruit 0.5-7cm long **17. *M. triphylla***
33. Fruit warty; young branches glabrous **16. *M. sessiliflora***

- * Fruit smooth; young branches usually hairy **34**
34. Fruit 2-10cm long; leaves \leq 3cm **35**
 * Fruit \leq 3 cm long; leaves 1-9cm **14. *M. oblongifolia***
- 35** Fruit 2-10cm long; leaves up to 3cm long **36**
 * Fruit $<$ 4.5cm; leaves $<$ 1.5cm long **15. *M. parviflora***
- 36** Young branches and fruit pubescent **3. *M. crassifolia***
 * Young branches and fruit glabrous **6. *M. endlichii***

1. *Maerua angolensis* DC.

Shrub or tree 1-10m; bark smooth, grey. Leaves ovate, broadly elliptic, or almost round, base rounded, subcordate or cuneate, apex obtuse to emarginate or mucronate (acute), 3-11 by 1.5-7cm, glabrous or rarely pubescent. Flowers white to pale yellowgreen, in short terminal racemes; petals 0. Fruit cylindrical and torulose, 6-20cm long, 6-10mm across.

K1234567; 1-1700m; I-IV, VII-IX, XI

Deciduous bushland, woodland, and wooded grassland; on the coast also in thicket on coral.

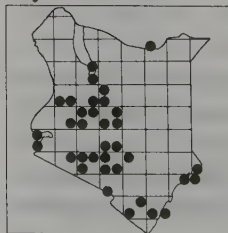
Kaikai (BOR), K'alkacca (GAB), Mukolekya (KAM), Bware (LUO), Ol-Amaloki (MAA), Mandas (PKT), Luliondo, Loitarkini (SAM), Hamaloshi (SOM), Mutunguru, Mlala-Mbuzi (SWA), Chebosiewa (TUG), Erreng, Esuwat (TIR). The wood is hard but brittle, and is used for furniture.

2. *Maerua calantha* Gilg

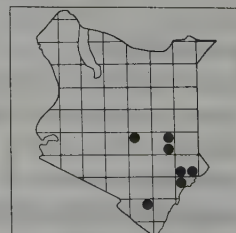
Scrambling shrub 1-4.5m. Leaves ovate or elliptic, base rounded to subcordate, apex obtuse to emarginate, 3-8 by 2-5.5cm, glabrous. Flowers white or green, in short terminal racemes; petals 9-12mm (much shorter than sepals). Fruit cylindrical with several rows of globular sections, 2-3.5cm by 6-10mm.

K47; 1-350m; III, VI-IX *

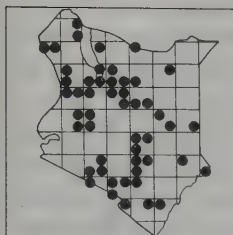
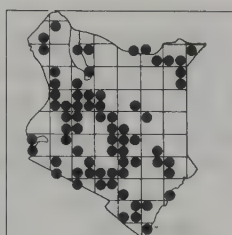
Deciduous or evergreen bushland to woodland, usually near rivers.



Maerua angolensis



Maerua calantha

*Maerua crassifolia**Maerua decumbens*

3. *Maerua crassifolia* Forssk.

Shrub or more often tree, 1.5-7.5m. Leaves in bunches on older branches, spaced on young branches, obovate-elliptic, base cuneate, apex obtuse or emarginate, 1-3.2 by 0.4-1.6cm, glabrous or pubescent. Flowers greenish white, in groups of 2-4 in axils of leaf bunches; petals absent. Fruit very constricted between globose sections, 2-10cm long by 4-7mm.

K123467; 1-1350m; I-XII (I-II, VIII)

Deciduous bushland, also bushed or wooded grassland; in the dry north usually along luggas, rivers and waterholes.

Kalka-Domaio (BOR), Dawa maaze, Dawa nyoka (ILW), Dumashio (GAB), Kalue (KAM), Tuwio (PKT), Dume (REN), Lumi, Ldumei (SAM), Ereng (TUR). Crushed bark and leaves are used as wound disinfectant by Turkana and Pokot; the roots are used against stomachache. Excellent camel browse.

4. *Maerua decumbens* (Brongn.) De Wolf

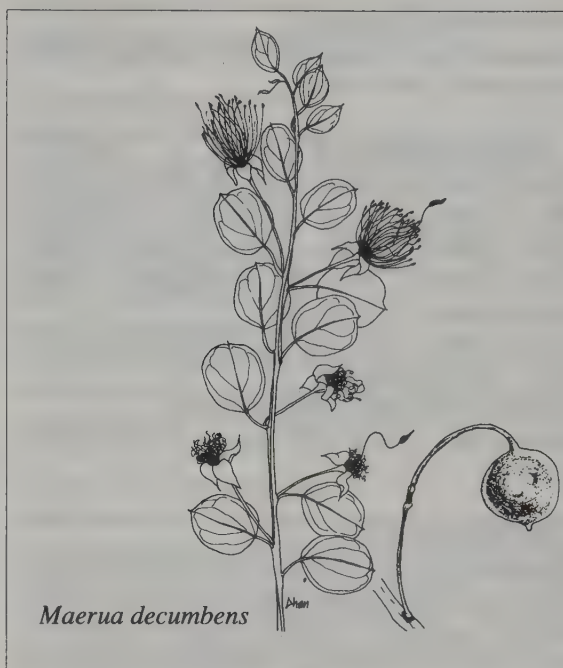
[incl. *M. edulis* (Gilg & Bened.) De Wolf, *M. subcordata* (Gilg) De Wolf, *Courbonia glauca* (Klotzsch) Gilg & Bened., *Courbonia subcordata* Gilg]

Shrub or woody herb 0.5-3m, with a large swollen root. Leaves bluegreen, slightly fleshy, narrowly elliptic to broadly ovate or almost round, base cuneate, rounded or subcordate, apex acute to rounded and mucronate, 0.8-4 by 0.3-2.8cm, glabrous. Flowers yellowgreen, single and axillary; petals absent. Fruit yellow to red, ellipsoid or round with a beak, 1.5-3 by 1-3cm.

K1234567; 1-1800m; I-XII

Deciduous or semi-evergreen bushland, bushed grassland, or wooded grassland; in dry areas often near seasonal rivers, lakes, or on alluvium. Conspicuous in burnt grassland, where it regenerates quickly from its thick woody root.

Hagarniama (BOR), Munatha (KAM), Ketit Ap Teita (KIP), Amoyo (LUO), Olkemet-me (MAA), Kukube-

*Maerua decumbens*

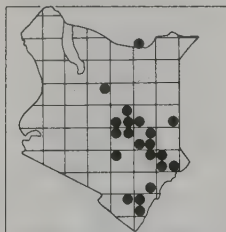
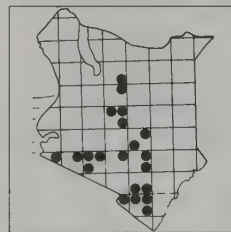
tari (ORM), Aruru, Chepluswo (PKT), Lamuyeg (SAM), Abar Moq, Ohia sagara (SOM), Monongwe, Yubuluswa (TUG), Lamayoki (NJE), Eerut (TUR). The root is used for purifying water, and chewed against thirst; the boiled fruits are edible. Other parts of the plant may be poisonous. Pokot use a leaf decoction on sore joints.

5. *Maerua denhardtiorum* Gilg

Shrub or tree 1-3m, evergreen. Leaves (broadly) ovate, base rounded to subcordate, apex obtuse to emarginate, 2-6 by 2-5cm, sandpapery. Flowers green with white stamens, solitary and axillary; petals absent. Fruit yellow, ellipsoid or round, 2-3.5cm, sandpapery and warty.

K147; 1-700m; I-III, V, VII-VIII

Deciduous bushland or bushed grassland, often in

*Maerua denhardtiorum**Maerua endlichii*

riverine or lugga bushland.

Qalquach (BOR), Quqube (ILW), Kukube (ORM), Ohia (SOM). Fruit edible.

6. *Maerua endlichii* Gilg & Bened. Map p.77

Shrub 1-3.5m, evergreen. Leaves in bunches, elliptic, base cuneate, apex acute (emarginate), 7-30 by 2.5-5mm, glabrous. Flowers white, in short corymbs, axillary; petals 1.8-3mm long. Fruits green, cylindrical and torulose, 2-10cm long.

K13467; 300-1800m; I-II, IV, VI-VIII, X-XI (VII-VIII) - map: see page 77

Bushland or wooded/ bushed grassland.

Mutungurute (EMB), Ol-Oirerio (MAA), Dume (SAM).

7. *Maerua glauca* Chiov.

Scandent shrub 2-3m. Leaves (narrowly) ovate, base obtuse to subcordate, apex obtuse with a mucro, 2-5 by 0.8-2cm, glabrous. Flowers white, in terminal racemes; petals 2-3mm long. Fruit yellow, round, size unknown.

K17; 1-600m; I, III*

Acacia thickets.

8. *Maerua grantii* Oliv.

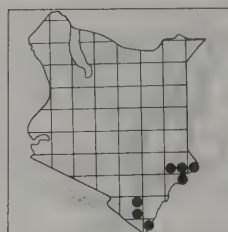
Shrub 0.5-3m. Leaves 3-foliolate or (upper ones) simple, very narrowly elliptic, base cuneate, apex acute, 2-4 by 0.2-0.9cm, glabrous. Flowers yellowgreen (with white filaments), in few-flowered terminal racemes, and also 1-2 per leaf-axil; petals 2-5mm long. Fruit yellow or orange, round, 15-20mm.

K17; 1-450m; V, VII-XI *

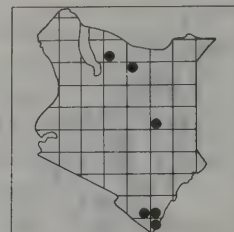
Deciduous bushland, or wooded grassland; often on alluvial soils.

9. *Maerua holstii* Pax

Climbing shrub 1.5-5m. Leaves trifoliolate, the leaflets obovate, base cuneate, apex rounded, 1.5-5.5 by 1-



Maerua holstii



Maerua kaessneri

4cm, pubescent. Flowers cream, solitary and axillary or in few-flowered terminal racemes; petals 4-5mm long. Fruit round with an apical bump, 2.5-4cm.

K7; 1-500m; II, VII-X *

Riverine or marshy bushland, evergreen forest.

10. *Maerua kaessneri* Gilg & Bened.

(Scrambling) shrub 1.5-2.5m, with twigs at right angles to main branches. Leaves in fascicles on very short shoots, narrowly obovate, base cuneate, apex rounded and often emarginate, 0.7-1.7 by 0.3-0.6cm, glabrous. Flowers yellowish, 1-3, axillary; petals 2-2.5mm long. Fruit round or ellipsoid, 8-13mm.

K17; 50-500m; II-III, VI, VIII *

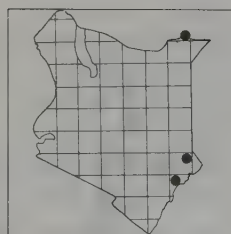
Deciduous *Acacia-Commiphora* bushland.

11. *Maerua kirkii* (Oliv.) F.White

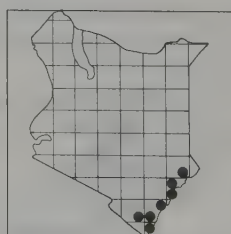
Shrub or tree 1-6m, evergreen. Leaves stiff and brittle, (slightly) obovate, base obtuse and subcordate, apex acute, rounded or emarginate and often with a mucro, (margin sometimes denticulate), 6-19 by 2-9cm, sand-papery above. Flowers white to yellow, in dense corymbs; petals 5-8mm long. Fruit orange, round with a pointed apex, 2-3.5cm, warty.

K147; 1-1000(1450?)m; I-III, VI-VIII, XII (VIII) Deciduous or (on the coast) evergreen bush- or woodland; less often in riverine forest or *Brachystegia* woodland.

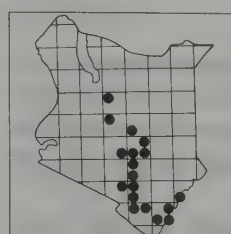
Muvovotwe, Mulavutw'a (KAM), Ki-Ari (EMB), Saigwe (TUR).



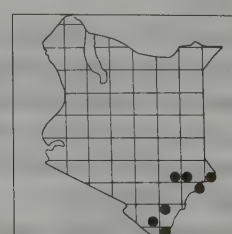
Maerua glauca



Maerua grantii



Maerua kirkii



Maerua macrantha

12. *Maerua macrantha* Gilg

Shrub, usually climbing, 2-6m. Leaves fleshy, broadly ovate or elliptic, base rounded, apex obtuse to emarginate, mucronate, 4-7.5 by 2-6cm, glabrous. Flowers cream or pale green, solitary and axillary or in few-flowered axillary racemes; petals 3-10mm long. Fruit orange-yellow, cylindrical to 7cm long, with 3-4 parallel rows of glabrous sections.

K7; 1-300m; III, V-VI *

Coastal or riverine thicket (also deciduous bushland ?) Alakal (ILW), Allakal (ORM).

13. *Maerua mungaii* Beentje

(*M. sp. C* of FTEA)

Shrub 1-2m, or climber to 3m. Leaves fleshy, elliptic or slightly ovate, base rounded or obtuse, apex rounded, acute or emarginate, often with a recurved mucro, 0.8-3 by 0.4-1.8cm, scabridulous. Flowers yellow(-green), in short axillary racemes; petals absent. Fruit red, ellipsoid, beaked at the apex, 1.3-1.6 by 0.6-1.1cm, warty.

K147; 30-400m; III-VI, X

Deciduous bushland or bushed grassland, usually on alluvium or black cotton soil.

14. *Maerua oblongifolia* (Forssk.) A. Rich.

Scrambling shrub 1-6m. Leaves fleshy, (narrowly) elliptic to almost linear, base obtuse to subcordate, apex obtuse and mucronate to acute, 1.5-9 by 0.2-1.2cm, glabrous. Flowers yellowgreen with white filaments and often purplish calyx, in several-flowered axillary or terminal racemes; petals 5-9mm long. Fruit cylindrical, to 3cm long, like *M. macrantha* or with just one or two globular sections.

K1237; (50)200-1050m; I-III, V-XII

Deciduous (*Acacia*) bushland or semi-desert scrub.

Chepanyirit (PKT), Latacha (SAM), Epipa (TUR).

Note: this species and *M. macrantha* are very close:

Carter & Stannard 161 from Turkana has leaves of up

to 5 by 3cm, but flowers of *M. oblongifolia*. They might be varieties of a single species.

15. *Maerua parvifolia* Pax

Woody herb 15-20cm or shrub to 1 (5)m. Leaves in bunches on short shoots, elliptic or slightly obovate, base cuneate, apex obtuse and mucronate, 0.4-1.5 by 0.2-0.6cm, slightly hairy. Flowers greenish white, solitary and axillary; petals 2-4mm long. Fruit cylindrical, 2-4.5cm long, torulose.

K1256; 700-1650m; V, VIII, X-XI *

Bushland, especially on shallow, rocky soils; the form with a thick root and small shoots seems to be a fire-adapted one.

16. *Maerua sessiliflora* Gilg

Shrub or tree 1.5-5m. Leaves leathery, in fascicles on very short shoots, slightly obovate, base cuneate, apex rounded, 0.4-1.1 by 0.2-0.4mm, glabrous. Flowers with reddish calyx and white filaments, 1-3 together on the short shoots; petals absent. Fruit cylindrical, 1-3cm long, torulose.

K147; 50-850m; IV-XI, XI *

Acacia-Commiphora bushland.

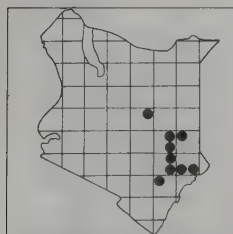
17. *Maerua triphylla* A. Rich.

[incl. *M. pubescens* (Klotzsch) Gilg, *M. johannis* Volkens & Gilg, *M. calophylla* Gilg]

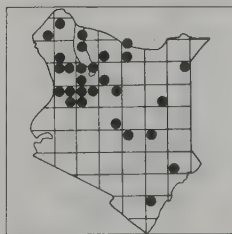
Shrub or tree 1-9m, occasionally a climber, evergreen. Leaves simple or 1-3-foliolate; leaf or leaflets ovate, elliptic or obovate, base cuneate or obtuse, apex acute, rounded or emarginate, and often with a mucro, 1.5-10 by 0.5-5cm, glabrous or pubescent. Flowers greenish-white to yellow or cream, in corymbose racemes; petals 3-5mm long. Fruit globose or ellipsoid to cylindrical, often constricted between the seeds, 0.5-7 by 0.5-1.5cm, glabrous, pubescent or warty.

K1234567; 1-2300m; I-XII (XII-IV, VII-X)

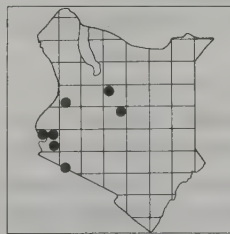
Evergreen or deciduous bushland or bushed/wooded



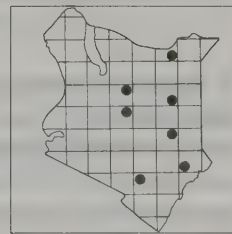
Maerua mungaii



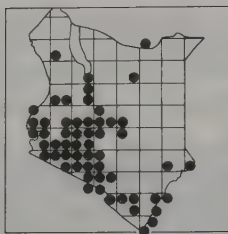
Maerua oblongifolia



Maerua parvifolia



Maerua sessiliflora

*Maerua triphylla*

grassland, thickets, and drier forest (margins); also along rivers and lakes. In Kenya only rarely reported from termite mounds. Does not appear in the drier types of deciduous bushland.

Kalkaj, Dumao (BOR), Mushindano (GIR), Klapacha (ILW), Mulingula (KAM), Borowet-Abiteta (KIP), Bware (LUO), Ol-Amalogi (MAA), Lito (NDO), Kalkalch-hare (ORM), Ohokowa, Mandas (PKT), Mulingula (SAM), Dumei (SOM), Ebele (TUR). The leaves yield a yellow dye.

Note: I see this species as a variable one; I am unable to distinguish clearly between the varieties in FTEA.

18. *Maerua* sp. "A" of FTEA (Gillett 14148)

Shrub or climber. Petioles 6-20cm long, reflexed, bearing at their apex what are either minute leaflets or the remnants of leaflets. Flowers cream, few per terminal raceme; petals 2-3mm long. Fruit round, about 5mm.

K1; 600-1050m; I, XI *

Between Moyale and Huri Hills, in deciduous *Acacia* bushland.

7. RITCHIEA

Leaves 1-5-foliolate. Inflorescence a corymbose raceme. Sepals 4; receptacle shallow; petals usually present, androphore short, stamens many; gynophore present. Fruit ellipsoid, grooved.

1. Inland species, 1100-2400m altitude

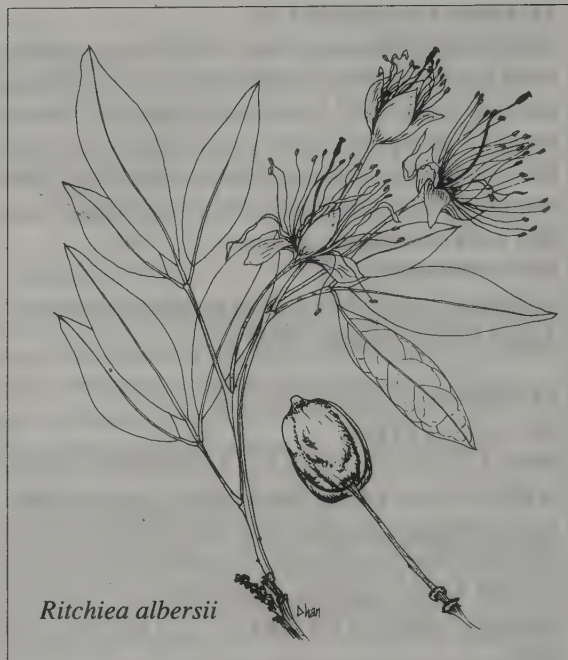
1. *R. albersii*

* Coastal species, 1-450m altitude

2. *R. capparoides*

1. *Ritchiea albersii* Gilg

Shrub or tree 2-15m; bark smooth. Leaves (1)3-5-foliolate; leaflets elliptic, base cuneate, apex acute or acuminate, 5-17 by 2-6cm, glabrous. Flowers green and white, in terminal several-flowered corymbs; petals linear, to 35mm long. Fruit (green?) ellipsoid, 2-3 by

*Ritchiea albersii*

1.5-2cm, slightly grooved.

K13567; 1100-2400m; I-III, VIII-XII

Moist or dry forest, riverine forest, plantation forest undergrowth.

Munangamai (KIK), Chesamisiet (KIP), Mutimweru (MER), Serratiwa (TUG).

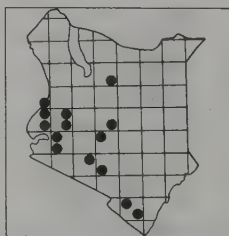
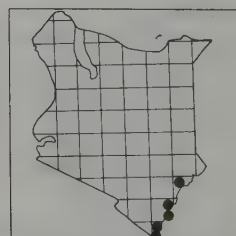
2. *Ritchiea capparoides* (Andr.) Britten

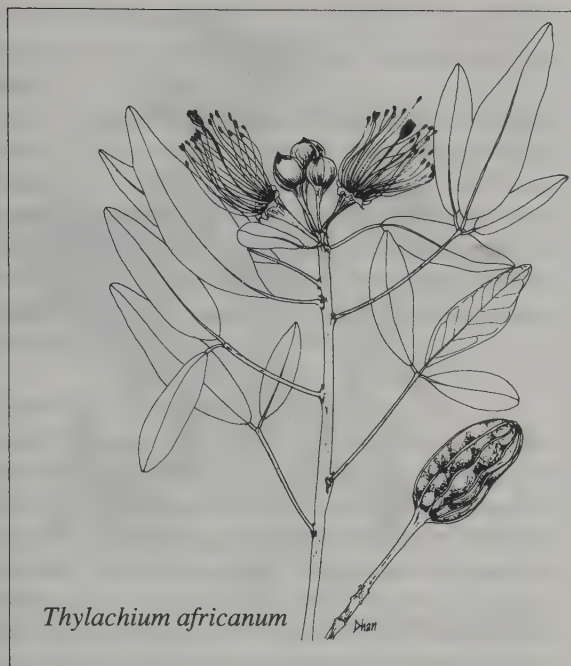
(Scrambling) shrub 1-2m. Leaves 3-foliolate; the leaflets similar to *R. albersii*. Flowers green and white, in several-flowered corymbs which are terminal on short branches; petals 3-6cm long. Fruit cylindrical, 4.5-6 by 1.3-2cm, 4-grooved.

K7; 1-450m; I-III, IX-X *

Forest (margins) or secondary bushland.

Mutunguru (SWA).

*Ritchiea albersii**Ritchiea capparoides*



8. THYLACHIUM

Leaves simple or 1-3-foliolate. Flowers in terminal or axillary racemes. Calyx closed at first, bursting open at anthesis, a 'cap' remaining hanging on one side. Petals absent; stamens many. Gynophore present. Fruits ribbed.

1. Leaves 1-3-foliolate

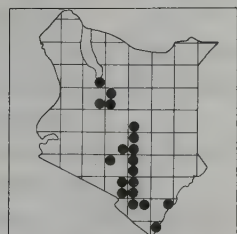
1. *T. africanum*

* Leaves simple

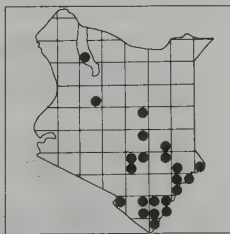
2. *T. thomasi*

1. *Thylachium africanum* Lour.

Shrub or tree 1.5-5m, evergreen; bark finely ridged, silvergrey. Leaves 1-3-foliolate, the leaflets elliptic, slightly (ob)ovate or linear, 3-15 by 0.6-4.5cm, glabrous or minutely glandular; margins thickened. Flowers white and green, sometimes with purple on lower gynophore and stamens, in terminal corymbs; buds 7-14mm across. Fruit ellipsoid, 3-6 by 1.2-2.5cm, lon-



Thylachium africanum



Thylachium thomasi

gitudinally ribbed.

K1467; 1-2400m; I, III, VI-XII (VIII-IX)

Deciduous bushland, woodland, or dry forest (margins).

Mtongi (BON), Mutunguu (KAM), Sangaretei (SAM), Mtunguru (SWA, TAI). The roots are poisonous, but edible after cooking.

2. *Thylachium thomasi* Gilg

Shrub or tree 1-5m. Leaves often somewhat fleshy, elliptic, ovate or nearly round, base rounded or subcordate, apex acute or obtuse and mucronate, 3-11 by 2-8cm, smooth or sandpapery. Flowers greenish, in corymbose racemes; buds 7-11mm across. Fruit ellipsoid, 2-6 by 1.5-2.3cm, ridged.

K147; 1-900m; I-XII (VIII-X)

Deciduous bushland or bushed grassland, riverine bush- or woodland, coastal bushland.

Qadu (BOR), Quqube (ILW), Kitungulu (KAM), Dika (ORM), Ohia (SOM), Mutunguru (SWA).

37. MORINGACEAE

1. MORINGA

Trees or shrubs with tuberous rootstocks; deciduous. Leaves alternate, 1-3-imparipinnate; leaflets mainly opposite, entire. Flowers 5-merous, regular or slightly irregular. Fruit a 3-valved capsule, each valve with 2 grooves; seeds 3-winged (in Kenya).

1. Leaves in a rosette at ground level *Moringa* sp.
(see note at end of descriptions)

* Leaves on the stems, above ground level 2

2. Receptacle tubular, 13-30mm long; pinnae 2,
seeds 10-13cm long 3. *M. longituba*

* Receptacle cup-like, short; pinnae 4-6; seeds
9cm long 3

3. Flowers regular; petals 8-10 by 1-2.5mm,
densely hairy inside; seeds 6-9cm long

6. *M. stenopetala*

* Flowers irregular; petals 10-20 by 2.5-8mm,
glabrous or pubescent; seeds less than 6cm
long 4

4. Sepals 17-19mm long; seeds ca 5.5cm long

1. *M. arborea*

* Sepals 7-14mm long; seeds less than 4cm long
5

5. Subshrub or woody herb 2. *M. borziana*

* Shrub or tree 6

6. Flowers white or yellowish; seeds 1.5-3.9cm long; leaflet apex rounded or emarginate

4. *M. oleifera*

- * Flowers reddish yellow; seeds 0.9-1.4cm long; leaflet apex acute

5. *M. rivae*

1. *Moringa arborea* Verdc. VULNERABLE

Tree to 15m; bark smooth, grey. Leaves not known. Flowers cream, with a pink calyx, in subterminal inflorescences to 15cm long; sepals 17-19 by 4.5-5mm, petals ca. 14-20 by 3.5-4.5mm. Fruits 53-57 by 1.6-1.8cm. Seeds 5.5cm long.

K1; 450m, I *

Found once (Bally & Radcliffe-Smith 14932) in a lugga 42km SE of Malka Mari. Not known elsewhere.

2. *Moringa borziana* Mattei

Shrub or woody herb (tree ?) to 1.5 (possibly 3) m, often flowering when leafless, arising from a large tuberous root. Leaves bipinnate, glabrous; pinnae in 4-6 pairs; leaflets 5-7 (or more) per pinna, pale yellow-green, elliptic or obovate, base cuneate, rounded, or obtuse, apex apiculate, 1-3 by 0.5-1.6cm. Flowers yellowish-red in 5-6cm long inflorescences; sepals 10-14 by 3-4mm; petals 14 by 4mm. Fruit purplebrown, 11.5-25 by 1-2cm. Seeds 2.5-3.8cm long.

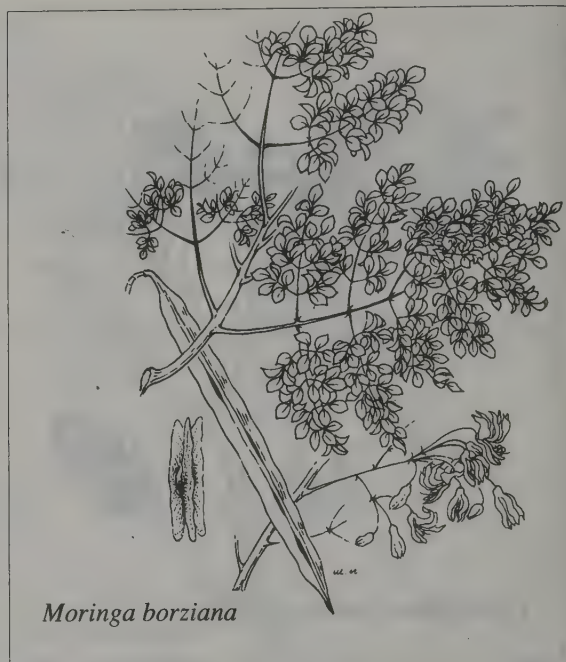
K147; 50-400m; I, V, VII-VIII *

Open bushland, e.g. of *Acacia-Commiphora*.

Safara (ILW), Mpunda (KAM), Safarra (ORM), Mawati (SOM).

3. *Moringa longituba* Engl.

Shrub 1-3m with a single stem or several whippy stems, flowering when leafless; tuber large. Leaves 2-3-pinnate, pubescent when young, later glabrescent, 15-40cm long; pinnae in 2 pairs; leaflets 3-5 per pinna, elliptic or obovate, base cuneate, rounded or subcordate, apex apiculate or rounded, 2.5-6 by 1.5-4.5cm. Flowers bright red in 4-8cm long inflorescences; se-



Moringa borziana

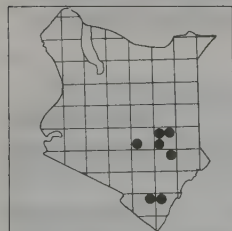
pals 9-12 by 3-4mm; petals 12-15 by 3mm. Fruit purple-brown, 13.5-30 by 1.2-1.4cm. Seeds 10-13cm long.

K1; 200-750m; I, VI-VIII *

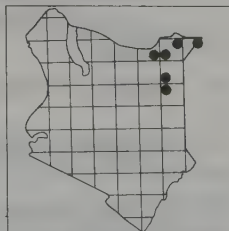
Open bushland, e.g. of *Acacia-Commiphora*. Safarra (BON), Haduna/Borant (SOM).

4. *Moringa oleifera* Lam.

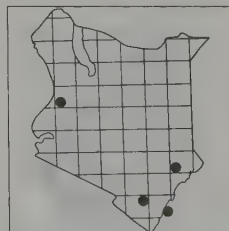
Shrub or small tree 2.5-10m, deciduous. Leaves 2-3(4)-pinnate, glandular near petiole and petiolules, 6.5-60cm long; pinnae 4-6 pairs; leaflets 6-9(11) per pinna, elliptic or obovate, base rounded or cuneate, apex rounded or emarginate, 0.5-2(3) by 0.3-1.3(2)cm. Flowers white, cream or yellowish, scented, many, in 8-30cm long panicles; sepals 7-10 by 2.5-3mm; petals 10-20 by 3-8mm. Fruit brown, 10-50 by 1.5-2.6cm. Seeds 1.5-3.9cm long.



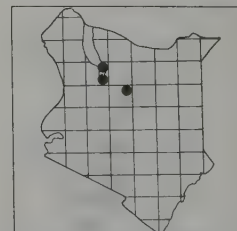
Moringa borziana



Moringa longituba



Moringa oleifera



Moringa rivae

K1247; 15-1350m; XII *

Cultivations, grassland on black clay, bushland on coral.

Horse Radish Tree (STAND), Mzunze, Mrongo (SWA). This species originally comes from North India but is widely cultivated; leaves are used as a vegetable, and the roots are used as a substitute for horseradish. In some places the species is naturalized.

Note: Data from our Herbarium labels are extremely scanty. Distribution and habitat notes have been taken from FTEA.

5. *Moringa rivae* Chiov. probably ssp. *rivae*

Shrub or slender tree 2-7m; flowering when leafless; bark smooth, pale brown; the tree, when leafless, looks like a *Commiphora*. Leaves 2-3-pinnate, glabrous or sparsely puberulous to 45cm long; pinnae 4-5 pairs; leaflets 3-5 per pinna, elliptic, base rounded or cuneate, apex acute, 0.9-4.3 by 0.4-2.5cm. Flowers yellowish with reddish tinge, in 6-15cm long inflorescences; sepals 10-14 by 2.5-6.5mm, reflexed; petals 12-20 by 2.5-4.5mm, widened in upper part. Fruit 24-40 by 0.7-1.6cm, slightly torulose. Seeds 0.9-1.4cm long.

K1; 600-1100m; I, VI, IX *

Rocky or pure lava sites, either as only species growing or in *Acacia-Commiphora* bushland or dwarf shrubland.

Lossantsho (SAM). Roots used as a powerful stomach medicine.

6. *Moringa stenopetala* (Bak. f.) Cuf.

Tree 6-12m, trunk to 60cm across, crown strongly branched; bark white to pale grey, smooth. Leaves 2-3-pinnate, glabrous or pubescent, to 55cm long; pinnae ca. 5 pairs; leaflets 3-9 per pinna, ovate or elliptic, base rounded or cuneate, apex acute, 3.3-6.5 by 1.8-3.3cm. Flowers white or yellowish, scented, many, in 10-60cm long panicles; sepals 4-7 by 2-3.5mm; petals 8-10 by 1.5-2.5mm. Fruit reddish with grey bloom, sometimes slightly torulose, 19-50 by 2-4cm. Seed 6-9cm long.

K123; 450-1200m; III-IV, VII, XII *

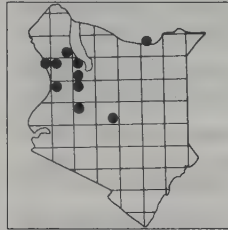
Riverine or on lakesides in dry areas (often on rocky ground).

Lorsanjo (Sam.), Safara (BON), Mau, Mawali (SOM). Roots medicinal.

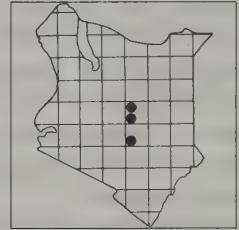
Note: The trees at Isiolo and Moyale may well have been planted.

Note: Gillett 21313, collected 32km E of Wajir is a sterile plant with a leaf rosette. It might be a new species of *Moringa*. The Somali name is Wamo.

Moringa ruspoliana Engl. is easily recognised by its once-pinnate leaves. It has not yet been found in Kenya but is known to occur just over the border in Ethiopia. The species is often found associated with gypsum.



Moringa stenopetala



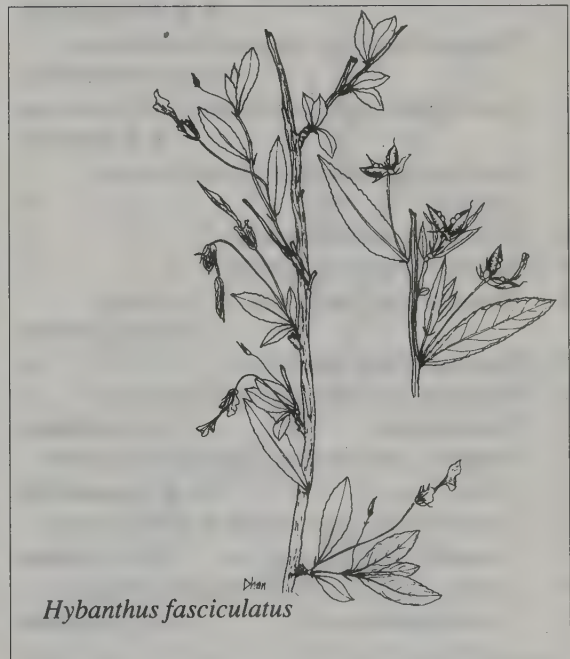
Hybanthus fasciculatus

40. VIOLACEAE

Leaves alternate or in bunches; stipules present but often caducous. Flowers actinomorphic or zygomorphic, in racemes or solitary. Flowers 5-merous. Petals 5, free. Fruit a loculicidal capsule with 3 valves.

1. Stipules persistent; flowers zygomorphic

1. *Hybanthus*



Hybanthus fasciculatus

- * Stipules caducous; flowers actinomorphic

2. *Rinorea*

1. HYBANTHUS

Flowers solitary in leaf-axils. Petals unequal, the lower lip largest.

Hybanthus fasciculatus Grey-Wilson (fig. see p.84) Woody herb or shrub 0.5-2m. Leaves alternate on young shoots, in bunches (fascicles) on older stems, elliptic-obovate, base cuneate, apex acute or obtuse, margins serrate, 1-4 by 0.5-1.7cm, slightly sandpapery above. Flowers white, pink or orange, solitary; lower lip 14-20 by 8-11mm. Fruit narrowly ovoid, 7-10mm long, glabrous.

K4; 550-900m; IV-V, XI-XII * Endemic to this area. Rocky bushland or tussock grassland; map see p. 84.

2. RINOREA

Leaves spirally arranged; stipules small, caducous. Inflorescence a raceme or panicle; pedicels articulate. Flowers actinomorphic with spreading or reflexed, equal petals.

1. Plants from either Western/Nyanza province or from Marsabit area 2

- * Plants from Coast or Taita 3

2. Flowers in terminal panicles; Western /Nyanza 3

3. *R. brachypetala*

- * Flowers in axillary racemes; Marsabit area

4. *R. convallaroides*

3. Leaf margins spinose, the spines 0.5-4mm long

7. *R. ilicifolia*

- * Leaf margins dentate to crenate, but not spinose 4

4. Flowers in axillary racemes 5

- * Flowers in terminal panicles 7

5. Racemes very condensed, ca. 1cm long

8. *R. squamosa*

- * Racemes longer than 2cm 6

6. Peduncle, pedicels and fruit glabrous or puberulous 5

5. *R. elliptica*

- * Peduncle, pedicels and fruit (densely) pubescent 1

1. *R. angustifolia*

7. Leaves elliptic, apex obtuse or acute; petiole usually glabrous 2

2. *R. arborea*

- * Leaves obovate, apex acuminate; petiole usually pubescent 6

6. *R. ferruginea*

1. *Rinorea angustifolia* (Thou.) Baill.

ssp. *ardisiiflora* (Oliv.) Grey-Wilson

Shrub or tree 2-10m. Leaves (narrowly) elliptic, base cuneate to subcordate, apex obtuse to acuminate, margin serrate-crenate or subentire, 2.5-13 by 1-5cm, glabrous or nearly so. Flowers (yellowish) white, in axillary racemes with up to 20 flowers; petals 3-6.5mm long. Fruit subglobose, hardly lobed, glabrous or pubescent. K7; 100-1800m; - *

Moist evergreen forest; only known from Ribe Kaya, Mangea and few other coastal sites, and Ngangao in Taita Hills.

2. *Rinorea arborea* (Thou.) Baill.

Shrub or tree 3-4.5(12?)m. Leaves elliptic, base cuneate or obtuse, apex obtuse or acute, margin serrate or subentire, 9-30 by 3-12cm long, glabrous or nearly so. Flowers greenish cream, in terminal panicles to 20cm long; petals 4-6mm long. Fruit woody, 3-angled, ellipsoid, 15-25mm, glabrous.

K7; 1-500m; VI-VII, X-XII *

Evergreen forest or woodland on coral.

Njovu (BON), Mkandaa-Mwitu (SWA). Used for building poles and tool handles.

3. *Rinorea brachypetala* (Turcz.) O.Ktze.

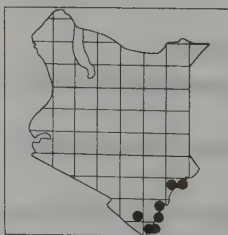
(*R. poggei* Engl.)

Shrub or tree 2.5-6.5m. Leaves elliptic or slightly obovate, base cuneate or obtuse, apex acute or shortly acuminate, margins serrate-crenate (to subentire), 6-19 by 3-9cm, glabrous or nearly so. Flowers white to pale orange, in terminal (and occ. axillary) panicles to 17cm long; petals 5-6mm long. Fruit ellipsoid, 11-16mm long, 3-lobed.

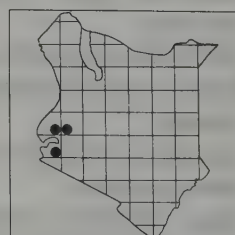
K35; 1400-1650m; I, III-IV, XI-XII *

Rainforest, often along rivers.

Luburika, Mbulikha (LUH), Mdhasa (LUO). The wood is used in hutbuilding, for walking sticks and rungs.



Rinorea arborea



Rinorea brachypetala

4. *Rinorea convallaroides* (Bak.f.) Eylesssp. *marsabitensis* Grey-Wilson(*R. convallariiflora* M. Brandt)

RARE

Shrub or tree 4.5-15m; bark smooth, light grey. Leaves elliptic or slightly obovate, base more or less rounded, apex obtuse or shortly acuminate, margins serrate, 3-10 by 1-4.5cm, glabrous or nearly so. Flowers cream (?), in axillary racemes to 7.5cm long; petals 4-6.5mm long. Fruit broadly ovoid, 11-16mm long, 3-lobed, glabrous.

K1; 1300-1800m; VII, XII *

Endemic to forest on Marsabit and Mathews.

Fito (BON, GAB).

5. *Rinorea elliptica* (Oliv.) O. Ktze.

Shrub or tree 1.5-12m, evergreen; bark smooth, dark grey to blackish. Leaves (broadly) elliptic, base subcordate or rounded, apex obtuse or subacute, margin crenate-serrate, 4-13 by 2-7cm, glabrous. Flowers white and pink, in lax axillary racemes (occ. branched at base) to 5cm long; petals 6-10mm long. Fruit red, subglobose, 6-9mm, glabrous, hardly lobed.

K7; 1-250m; I-II, VII, IX, XI-XII

Riverine forest or groundwater forest.

Mudhurajho, Monofwa-kuku (ILW), Murighati, Mugandama (PKM), Mshunduzi (SWA).

6. *Rinorea ferruginea* Engl.[*R. gazensis* (Bak.f.) M.Brandt]

Shrub or tree 1-6m. Leaves obovate, base cuneate or obtuse, apex acuminate, margins serrate-dentate, 8-30 by 3-8.5cm, glabrous except for midrib & veins beneath. Flowers dull yellow, in terminal panicles to 10cm long; petals 3.5-5mm long. Fruit blackish brown, ovoid, 11-17mm long, 3-lobed, pubescent or glabrous.

K7; 300-450m; I-IV, VIII-IX, XII *

Evergreen forest; Shimba Hills.

Mbavubavu (DIG).

7. *Rinorea ilicifolia* (Oliv.) O.Ktze var. *ilicifolia*

Shrub (tree) 1-4.5m, evergreen. Leaves elliptic or obovate, base cuneate to obtuse, apex acute to acuminate, margins spinose-serrate, 7.5-25 by 3-11cm, glabrous or nearly so. Flowers greenish cream to dull yellow, in terminal (axillary) panicles to 16cm long; petals 4.5-5mm long. Fruit subglobose, 12-16mm, 3-lobed, glabrous.

K7; 1-450m; I-II, IV, IX-XII *

Evergreen forest or riverine; the dominant undershrub in Witu forest.

Bullabulla (BON), Mkurute (SWA). Timber hard, dense.

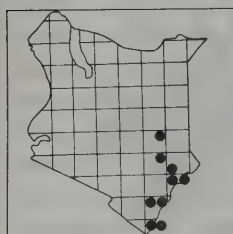
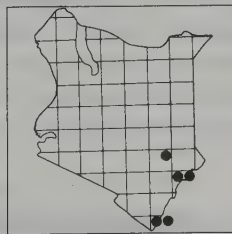
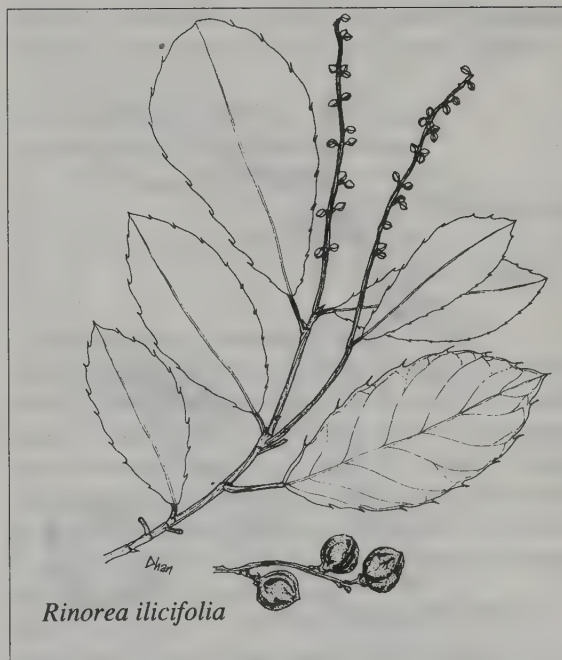
8. *Rinorea squamosa* (Tul.) Baill.ssp. *kaessneri* (Engl.) Grey-Wilson(*R. kaessneri* Engl.)

Shrub (tree) to 4m. Leaves elliptic, base cuneate or rounded, apex acute or acuminate, margins serrate-dentate, 3-15 by 1-6.5cm, glabrous (occ. with pubescent midrib). Flowers greenish white, in very short axillary racemes to 1cm, petals 3.5-5mm long. Fruit subglobose, 10-12mm, hardly lobed, glabrous or pubescent.

K7; 1-400m; X-XII *

Evergreen forest: Witu, and rare on South Coast.

Mbage-Na-Mbage (SWA).

*Rinorea elliptica**Rinorea ilicifolia**Rinorea ilicifolia*

42. POLYGALACEAE

Trees, shrubs, climbers, or herbs. Leaves alternate, simple, entire, exstipulate. Flowers zygomorphic. Sepals 5; petals 3-5.

1. Sepals subequal; petals 5; fruit a 3-angled drupe

1. *Carpolobia*

- * Sepals unequal; petals 3; fruit a winged nut

2. *Securidaca*

1. CARPOLOBIA

Petals 5, keel with an appendage; fruit a drupe, 2-3 locular.

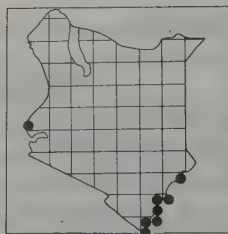
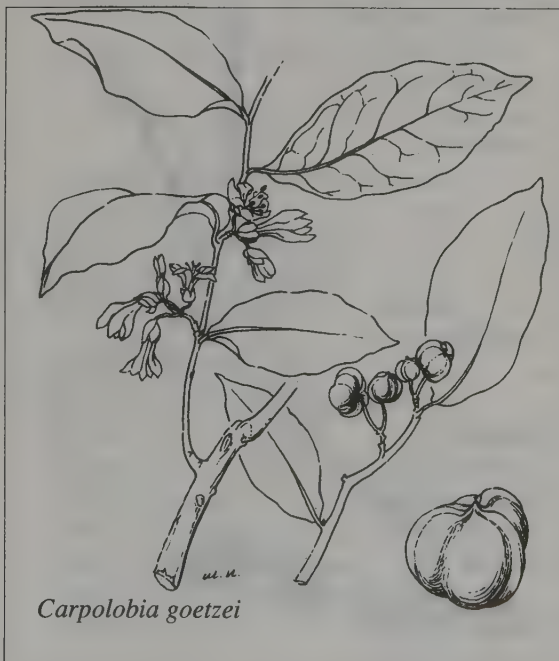
Carpolobia goetzei Gürke

Shrub or small tree 1-4.5m (twice reported as a scrambler), evergreen; bark smooth, grey. Leaves ovate to slightly obovate, base cuneate or rounded, apex shortly acuminate, 4-9 by 2.5-7cm, often pubescent on the midrib. Flowers white, the lateral petals tinged with purple, in short (-3cm) axillary racemes; petals to 15mm long. Fruit 3-angled, slightly beaked, to 1cm in diameter, black.

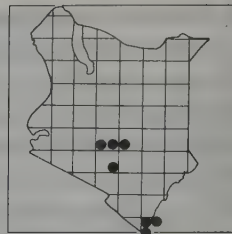
K57; I, III-IV, XI-XII *

Mixed forest or bushland; 1-500m (coast) & 1200m (collected once at Port Victoria).

Mtindapo (SWA). Fruit edible.



Carpolobia goetzei



Securidaca longipedunculata

2. SECURIDACA

Sepals unequal: two lateral ones are larger and petaloid ("wing-sepals"). Petals 3, occasionally 5, two being very small; lowermost one keel-shaped. Fruit a samara; 1-locular, 1-seeded, winged.

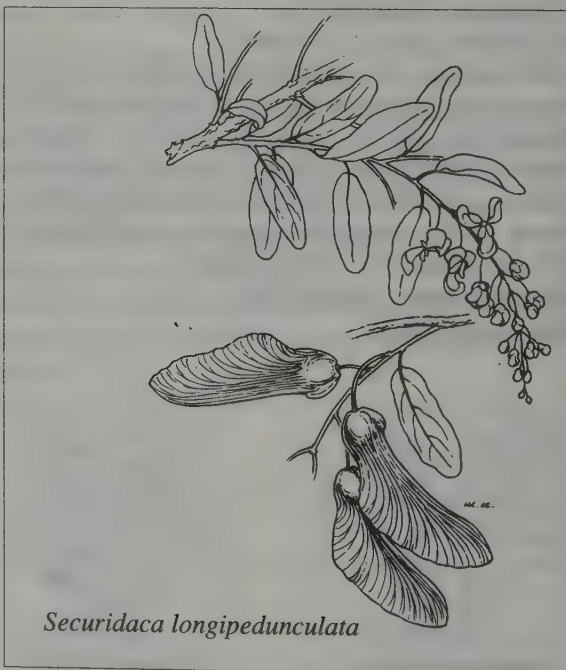
1. Shrub or tree; leaves up to 5 by 2cm, apex rounded

1. *S. longipedunculata*

- * Climber; leaves larger than 5 by 2cm, apex acuminate

2. *S. welwitschii*1. *Securidaca longipedunculata* Fres.

Shrub or small tree, 2-7.5m; bark grey and smooth or flaking in rectangular patches; slash pale yellow. Leaves narrowly ovate or elliptic, base cuneate or rounded, apex rounded, 2.5-5 by 0.9-1.6 (-2.5)cm, puberulous when young. Flowers pink or violet, many in lateral or terminal racemes to 9cm long; petals to



10mm long. Fruit nut ca. 8-10mm across, wing to 5 x 2.3cm, pale green with red or purple along the upper edge.

K47; 1-1350m; I, III, IX, XI *

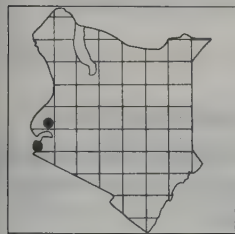
Secondary bush and wooded grassland, forest edges. Violet Tree (STAND), Mzigi, Muteya (SWA), Mugaruka (KIK), Itithi (KAM). A root infusion is used to reduce swellings; the wood is used for bows; stems yield a strong fibre.

2. *Securidaca welwitschii* Oliv.

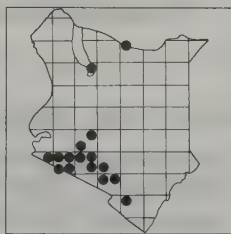
Climbing shrub or liana to 10m. Leaves elliptic or obovate, base cuneate or rounded, apex acuminate, 5-10 by 2-3.5cm, glabrous. Flowers similar to preceding species. Fruit as in preceding species, although the wing is narrower (to 1.7cm wide).

K5; 1500-1900m; I, X *

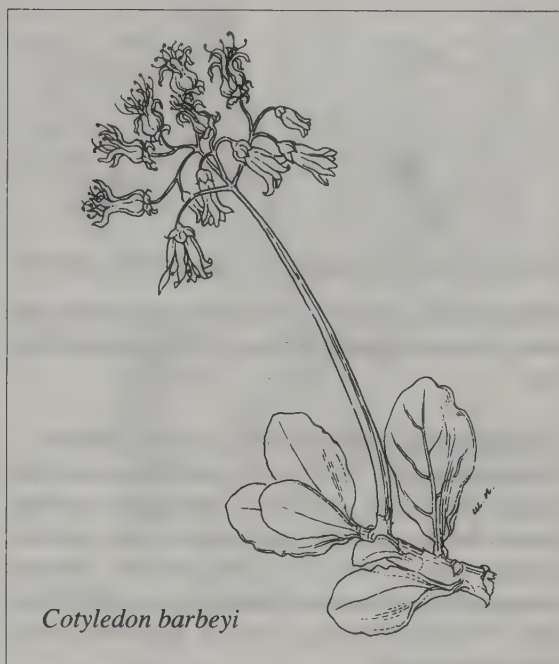
Rainforest edge or riverine forest.



Securidaca welwitschii



Cotyledon barbeyi



Cotyledon barbeyi

(MAA). Heated leaves are rubbed on painful parts of the body.

56. PORTULACACEAE

Herbs or subshrubs. Leaves fleshy, entire, stipulate. Flowers regular; sepals 2, petals 5; fruit a capsule.

45. CRASSULACEAE

Leaves fleshy, exstipulate. Flowers regular, 5-merous. Fruit a group of follicles with tiny seeds.

1. COTYLEDON

Cotyledon barbeyi Schweinf.

Herb or (scandent) shrub, 0.7-3m, stem pink and succulent. Leaves greygreen, occasionally with white bloom, fleshy, opposite, clustered near stem apex; obovate, narrowing towards the stem, apex rounded or acute, 4-11 by 1.5-6cm, glabrous. Flowers yellow, pink or red, hanging, many, in long-pedunculate panicles to 50cm long; petals 2.3-2.7cm long, recurved. Fruit developed inside the dried-up flowers which become erect at this stage.

K13467; (1000)1550-2400m; III, V-XI.

Evergreen or deciduous bushland or thickets on rocky soil or lava.

Esemolea (KAM), Kuserwet (KIP), Ol-Masiligi

1. CALYPTROTHERA

Leaves alternate. Stamens numerous.

1. Flowers in clusters, petals 13-24mm

1. *C. somalensis*

* Flowers in panicles, petals 5-7mm

2. *C. taitensis*

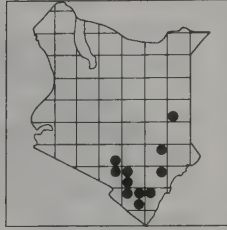
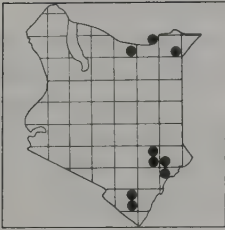
1. *Calyptrotheca somalensis* Gilg

Shrub, 0.9-3m, suberect; stems succulent, from a large, fleshy, tuberous rootstock. Juice greenish. Bark smooth, grey. Leaves fleshy, obovate, base cuneate, apex rounded, margins very wavy, 2-5 by 0.9-3.5cm, glabrous. Flowers greenish or white, precocious, 4-20 in clusters terminating the branchlets; petals 1.3-2.4cm long. Fruit yellowish, ovoid, 8-11mm long; 1-seeded, seed black with a red lobed aril.

K17; 1-1000m; I-V, VII-VIII, X, XII.

Open bush, bushed grassland or bare ground.

Mukhudu-Nyuma, Dalol (BOR), Solol, Duhn (SOM).



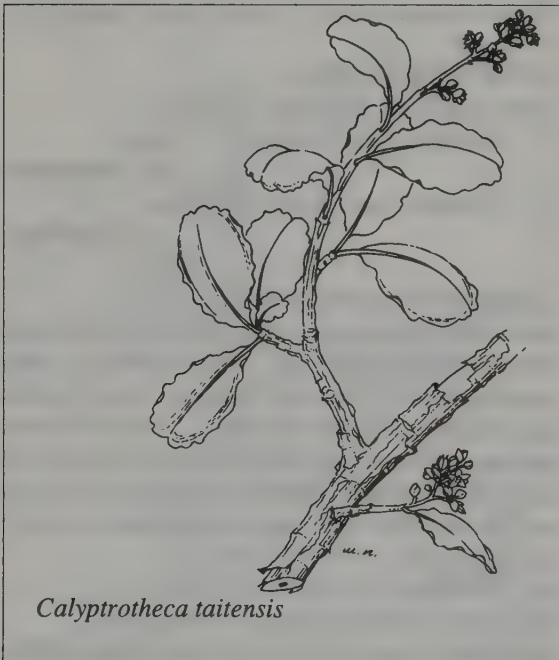
Calyptrotheca somalensis *Calyptrotheca taitensis*

Mature leaves are used against stomach trouble; the juice of the stem quenches thirst. The roots are poisonous.

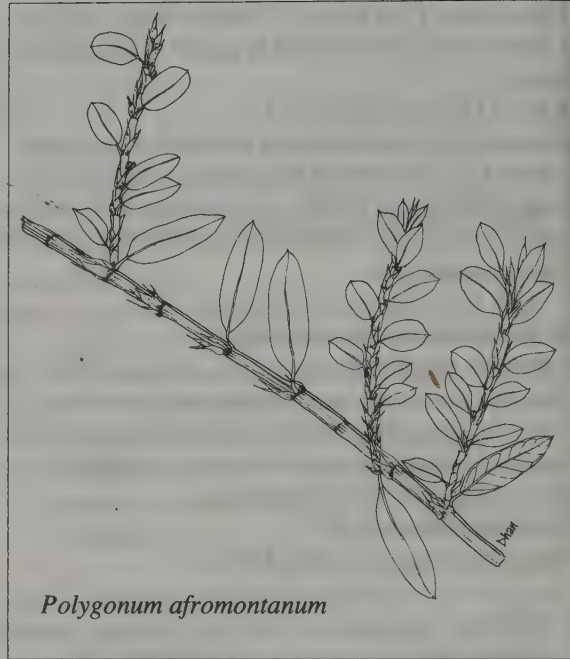
2. *Calyptrotheca taitensis* (Pax & Vatke) Brenan (Scandent) shrub, 1.8-4.5(6?)m, multistemmed; bark rough, greybrown, flaking in rectangular patches. Leaves fleshy, obovate, base cuneate, apex rounded, margins wavy, 2-7.5 by 1-3cm, glabrous. Flowers yellow-white, in terminal panicles; corolla 5-7mm long. Fruit to 5mm long, 1-seeded, seed black with a lobed orange aril.

K147; 1-900m; I-II, V, XI-XII *

Open or closed (*Commiphora*) bushland or riverine. Kisengele, Kisakele (KAM), Dujume (ORM), Dholol (SOM).



Calyptrotheca taitensis



Polygonum afromontanum

57. POLYGONACEAE

Leaves alternate, the petiole at the base dilated into a membranous sheath surrounding the stem. Petals absent; sepals 3-6. Fruit nut-like.

1. Leaves cuneate at base, almost sessile

1. *Polygonum*

* Leaves hastate at base, long-petiolate 2. *Rumex*

1. POLYGONUM

Polygonum afromontanum Greenway

Creeping, erect or scrambling shrublet 0.2-2m. Leaves elliptic, base cuneate, apex acute, 0.5-3.7 by 0.3-1.4cm, glabrous. Flowers greenish white or pink, axillary, several together; flowers to 3mm long. Fruit tiny.

K346; (2050) 2700-3400m; I, III, VI, VIII, X *

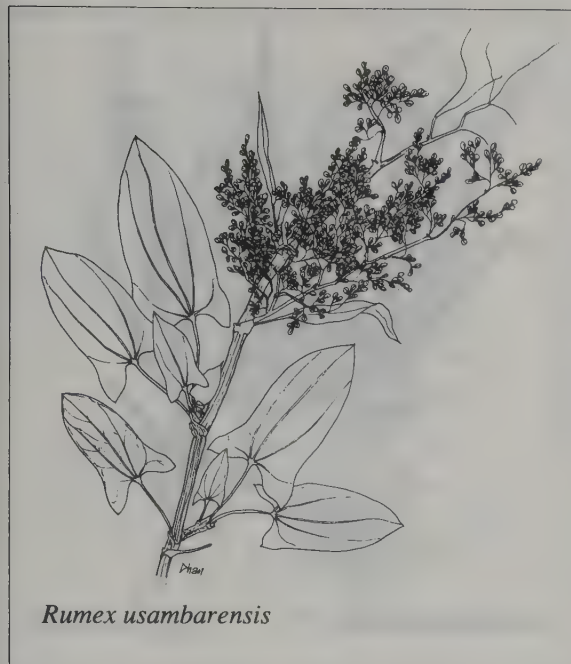
Hagenia zone, bamboo zone, less often in forest: Mt Kenya, Nyandarua/Aberdares, Mau.

2. RUMEX

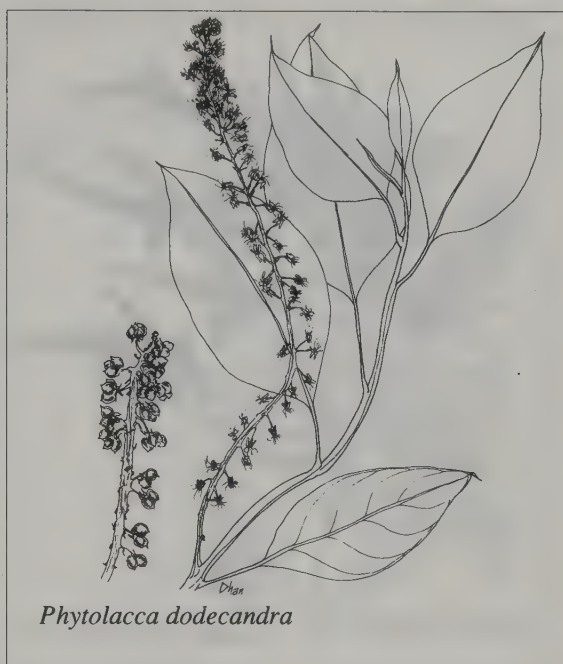
Rumex usambarensis (Dammer) Dammer

Shrub or scrambler 1-4.5m. Leaves with (very) hastate base, apex acute, 2-11 by 0.5-4cm, glabrous. Flowers pink-red, in panicles to 30cm long; flowers to 7mm long. Fruit 3-angled, 2-2.5mm.

K1346; (850) 1500-2500m; I-XII



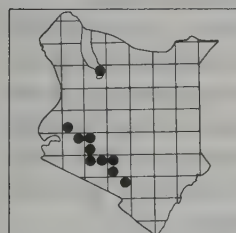
Rumex usambarensis



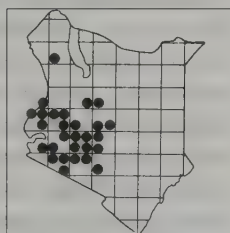
Phytolacca dodecandra

(Bushed) grassland, rocky bushland, often in damp sites. A weed in pasture.

Kinyonywe (KAM), Mugagatio (KIK), Enkaiswishoi (MAA). Leaves edible, sour but refreshing.



Rumex usambarensis



Phytolacca dodecandra

59. PHYTOLACCACEAE

Leaves alternate, without stipules. Flowers in racemes. Sepals 5; petals absent; stamens 5-25; fruit of several fleshy carpels.

1. PHYTOLACCA

1. Fruit orange or red, of 5 carpels; flower pedicel 1.5-5mm

1. *P. dodecandra*

- * Fruit blackish, of 8 carpels; flower pedicel 1-2mm

2. *P. octandra*

1. *Phytolacca dodecandra* L'Hérit.

Shrub or climber 1-5(18)m; sometimes rather succulent. Leaves ovate or elliptic, base cuneate to subcordate, apex shortly acuminate (and recurved), 5-17 by 2-6cm, glabrous. Flowers green or white, many in racemes to 30cm long; sepals 2-3mm long. Fruits orange or red, 5-8mm across the star-shaped carpels. K1234567; 1400-2400m; I-XII (II, X)

Dry or moist forest margins, riverine woodland, thickets and wetter bushlands.

Muhoko (KIK), Batkanet (KIP), Oldiangeras (MAA), Kipsugotit (MAR), Kobot Kanet (NAN), Jebetit (SAM), Ejemait (TUR). **Very poisonous**, causing deaths in humans and stock.

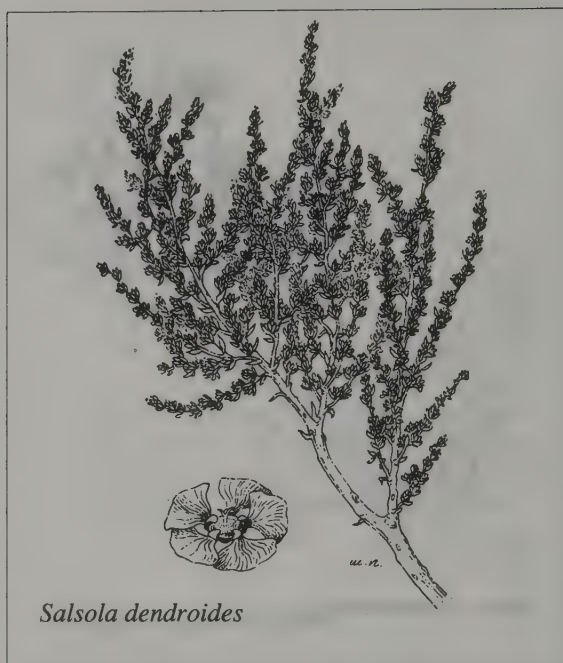
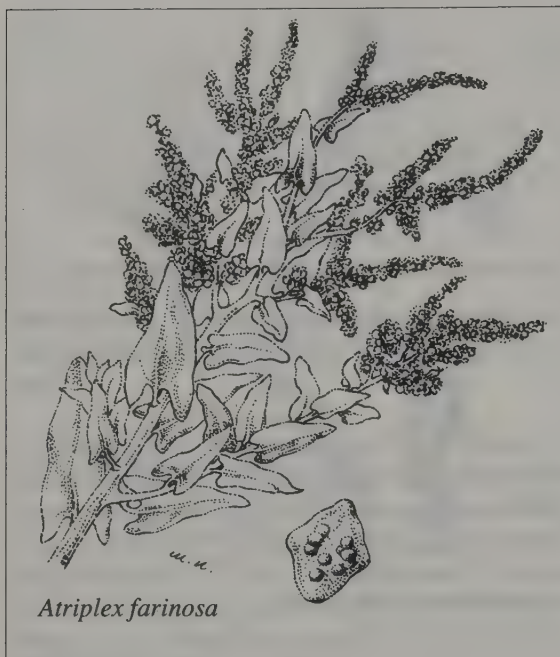
2. *Phytolacca octandra* L.

An exotic woody herb, 1-2m; locally naturalized in waste places in the Nairobi area and along the road to Kitale.

61. CHENOPODIACEAE

(by Quentin Luke)

Usually succulent and growing on salty soils. Leaves alternate to (sub) opposite, exstipulate. Flowers very small, usually regular, in clusters; petals absent, stamens 3-5 opposite the sepals. Fruit usually an indehis-



cent achene.

1. Leaves at least 1cm wide. Plant white-mealy

1. *Atriplex*

- * Leaves very narrow or scale-like. Plant glabrous or pubescent

2. Leaves to 4mm long, scale- or boat-shaped

2. *Salsola*

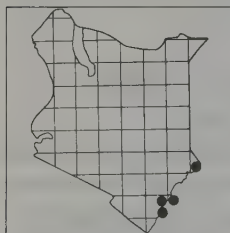
- * Leaves to 35mm long, linear, often cylindrical

3. *Suaeda*

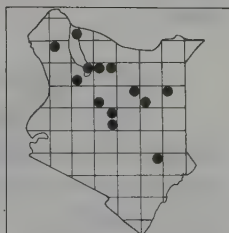
1. ATRIPLEX

Atriplex farinosa Forssk. var. *keniensis* Brenan

Shrub 1-2m, white or grey-green due to mealy cover. Leaves alternate, ovate, base cordate, apex acute or rounded, 2-6 by 1-3.5cm, glabrous. Flowers sessile, in dense terminal panicles. Fruit enclosed by enlarged bracteoles, 4-6mm long, warty.



Atriplex farinosa



Salsola dendroides

K7; near high water mark; IV, VIII, X-XII (X)
On sand and tidal debris.

2. SALSOLA

Salsola dendroides Pall. var. *africana* Brenan

Shrub to 2m. Leaves in small clusters, boat-shaped to linear, 1-4(8) by 1-1.5mm, fleshy, salty, sessile. Flowers solitary, axillary but so close together to give the impression of a spike. Sepals persistent and forming a wing-like structure around the seed; ca. 8mm across. K1247; 50-950m; I, III, VI-VIII, X-XII (VI-VIII, XII) Semi-desert scrub and along luggas.

Durte (BOR, ILW, ORM, SOM), Hadu'un (REN), Aduom (SAM), Darran-ad (SOM), Echemle(le) (TUR). Good camel fodder, though very salty.

3. SUAEDA

Suaeda monoica J.F. Gmel.

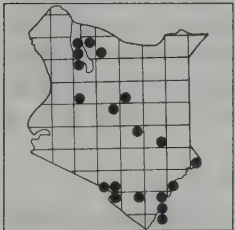
Shrub 1-4(6)m. Leaves alternate or subopposite, fleshy, linear and cylindrical to flattened, to 4cm long. Flowers greenish, clustered in the upper axils. Fruit a single black seed with a red-purple pericarp.

K1367; 1-1100m; I, III, V-XI (VIII)

Landward side of mangroves, inland on edges of salt pans, swamps, rivers and on generally saline soils in semi-arid areas. Often in pure stands.



Mwinyonye (SWA, PKM), Durte (BOR, GAB), Ol-Nyarusa (MAA), Lufute Hadu'un (REN), Mwinamia-Maji (SWA), Amaressa (SOM), Musiwa (TAV), Echamuyee (TUR). Good camel fodder; very salty.



Suaeda monoica

63. AMARANTHACEAE

A family of herbs and woody herbs, rarely lianas. This family includes many borderline cases which might or might not be included; I have decided to treat only the following species, because of its size.

1. SERICOSTACHYS

Sericostachys scandens Gilg & Lopr.

Woody climber 3-30m. Leaves opposite, ovate or elliptic, base cuneate, apex acuminate, 4-15 by 3-7cm, glabrous or tomentose. Flowers in whitish, large

panicles, the individual panicle branches resembling spikes; flowers enclosed in bracts. In the fruiting stage sterile flowers with long silky hairs give the panicle a very white-hairy appearance; fruits 3-3.5mm long. K5, Kakamega Forest and near Kericho; 1500-2300m; X-XII *

Moist (riverine) forest.

Said to flower once every seven or eight years; initiation ceremonies are linked to this flowering.

71. BALSAMINACEAE

The balsams are mostly herbs, but the following is the one shrubby species which grows to over 1.5m.

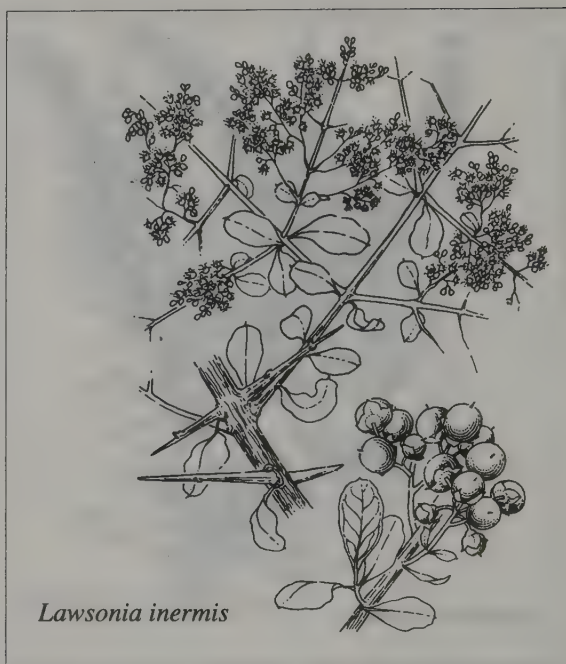
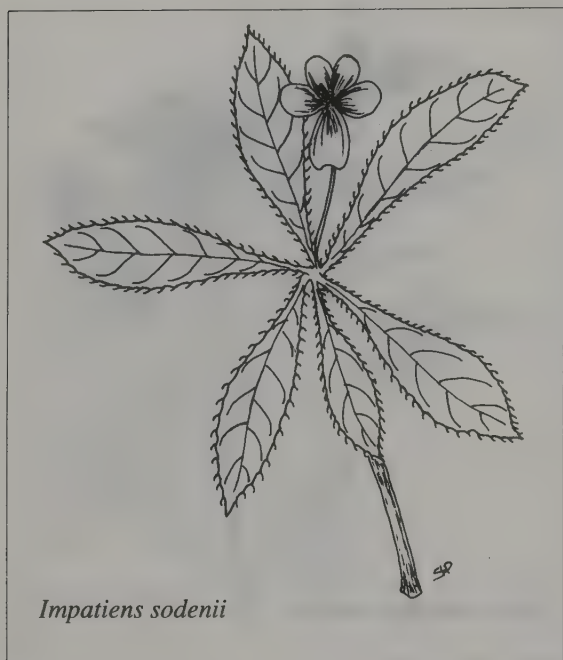
1. IMPATIENS

Impatiens sodenii Engl. (map & fig. see p 92)

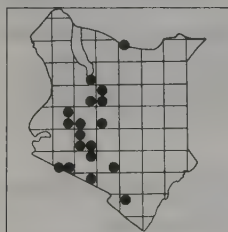
Succulent shrub 1-3m. Leaves in whorls of 3-6 near stem endings, (narrowly) elliptic to slightly obovate, base attenuate, apex acute, margins serrate or serrulate with long fimbriae (see ill.) near the base, 5-18 by 1.8-5cm, glabrous. Flowers white, pink or pale violet, solitary or two together, to 6cm across. Fruit ca. 24 by 8mm.

K13467; 1300-2700m; II-III, V-VII, IX-X, XII

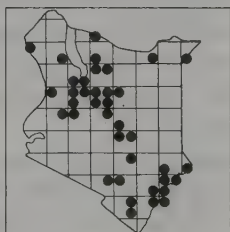
In damp sites in forest (remnants) such as rocks and rocky streambeds.



Gororot (MAR), Janbe (TUG), Mungondi (TAI).



Impatiens sodenii



Lawsonia inermis

72. LYTHRACEAE

(by Quentin Luke)

Leaves opposite or whorled, with small stipules or exstipulate. Flowers with 4 or 6 petals, inserted inside and near the top of the calyx tube. Stamens the same number or double. Fruit a many-seeded dry capsule.

1. Leaves more than 5cm long; flowers more than 1cm long

3. *Woodfordia*

- * Leaves generally less than 5cm long; flowers less than 8mm long

2

2. Leaves fleshy, often hairy, without obvious veins. Near high tide mark

2. *Pemphis*

- * Leaves not fleshy, glabrous, with clear veins, often spiny

1. *Lawsonia*

1. LAWSONIA

Lawsonia inermis L.

Shrub or tree 3-4(6)m, with short side branches often ending in a spine; young stems square. Leaves shiny, often red when young, elliptic or obovate, base cuneate, apex rounded, obtuse or apiculate, 1-4 (7.5) by 0.5-2 (3.5)cm, glabrous. Flowers 4-merous, white or cream, small, in leafy panicles to 25cm long. Fruit in dense clusters, reddish yellow, globose, to 8mm, with a persistent style.

K12347; 1-1400m; I-VIII, X-XII (IV-V)

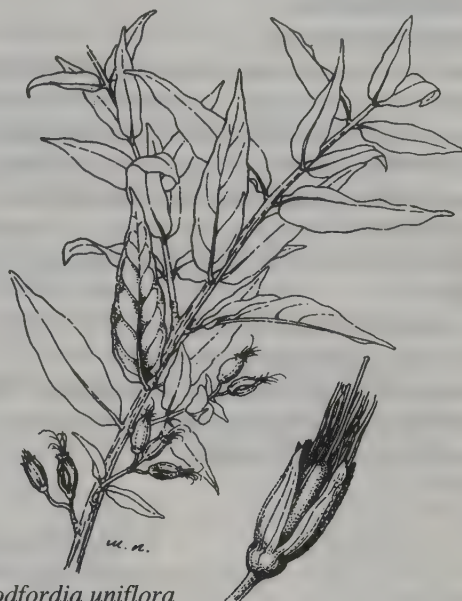
Coastal bushland, riparian in semi-arid areas, wooded grassland.

Henna (STAND), Myumanyuki (BAJ), Urrurr, Elm (BOR), Komochi, Gomojia (BON), Halam (GAB), Mosriya (ILW), Durrur (ORM), Kapaeamenion (PKT), Hanlan, -Ki-Dahan (REN), Ilgeri (SAM), Allan, Elan (SOM), Mkokoa Muhina (SWA). Dye from the leaves; perfume from the flowers; roots emetic; stems used for fibre; makes a good hedge.

2. PEMPHIS

Pemphis acidula Forst.

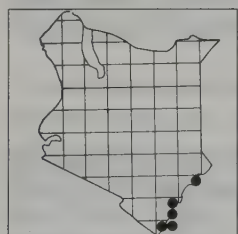
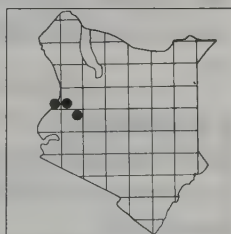
Shrub or tree to 4 (7)m. Bark grey, rough, reticulate. Leaves opposite, almost whorled, fleshy, (narrowly) elliptic or obovate, base cuneate, apex acute or obtuse,

*Pemphis acidula**Woodfordia uniflora*

1-3.3 by 0.3-1.3cm, soft-pubescent (glabrous). Flowers pink, axillary, 1-2; petals 6-7mm long. Fruit purple, subglobose, with a persistent calyx.

K7; near high water mark; I-V, VII-VIII, X-XII (XI) On sand and coral, exposed to salt spray.

Mkaa-Pwani, Mnyanyuwa (SWA).

*Pemphis acidula**Woodfordia uniflora*

3. WOODFORDIA

Woodfordia uniflora (A.Rich.) Koehne

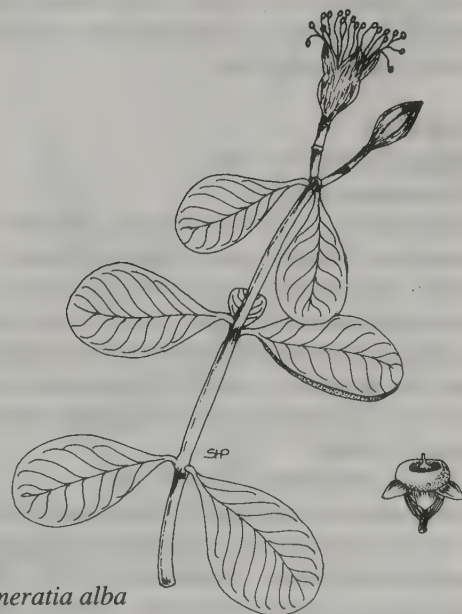
Shrub to 3m. Leaves opposite, linear to narrowly elliptic, slightly falcate, base rounded, apex acute or acuminate, 5-9.5 by 1.5-2.5cm, glabrous, with black glands. Flowers red to orange, terminal or axillary, in short cymes; calyx tubular, 1-5cm long; petals minute. Fruit hidden in persistent calyx.

K23; 1350-2300m; I, X-XI *

?on rocky slopes, along rivers in dry bushland.

74. SONNERATIACEAE

Leaves opposite, without stipules. Flowers 4-8-merous, with many stamens in rows. Fruit a berry.

*Sonneratia alba*

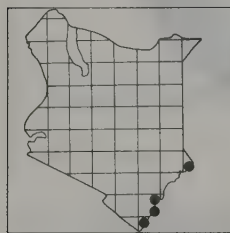
1. SONNERATIA***Sonneratia alba* Sm.**

Tree 5-9(15)m, with many finger-like pneumatophores; bark smooth or rough. Leaves obovate to almost round, base cuneate, apex rounded or emarginate, 4-10 by 2.5-9cm, glabrous. Flowers with the calyx pink inside, petals white or pink but soon deciduous, looking much like the filaments; flowers 1-3 together at shoot ends, 2.5-3.5cm long. Fruit obovoid, 2-3 by 3-4cm.

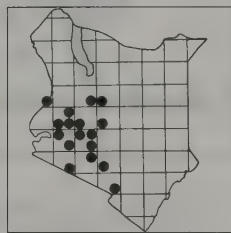
K7; sealevel; VII-VIII, XI *

Outer (seaward) edge of mangrove.

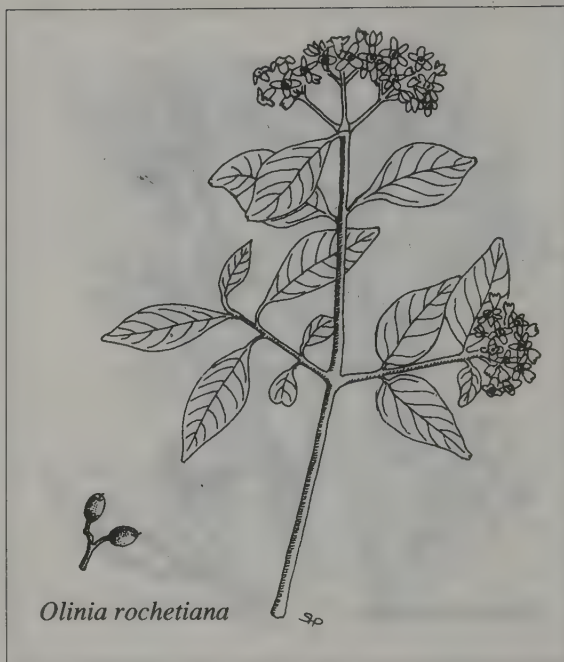
Mlilana (SWA). Wood used in carpentry. The bark yields tannin, and the leaves are used for camel fodder. The fruit is said to be edible.



Sonneratia alba



Olinia rochetiana



Olinia rochetiana

Kabigeriet, Kabideleliet (NDO), Lgering (SAM), Kaptalonget (SEB). Maasai use a bark decoction against cough. The timber is heavy.

76. OLINIACEAE

Leaves opposite or ternate, with minute stipules. Flowers in axillary or terminal cymes, 4-5-merous. Fruit a thinly fleshy drupe.

1. OLINIA***Olinia rochetiana* A. Juss.**

(*O. usambarensis* Gilg.)

Shrub or tree 2-12 (24?)m; bark grey, smooth or rough, sometimes flaking; young branches square; young leaves' petioles red. Leaves elliptic, base cuneate, apex (acuminate and) obtuse, 2-10 by 1-4cm, glabrous or minutely puberulous. Flowers cream fading to pink and red, scented, in round or pyramidal cymes to 7.5cm across; petals 2-5mm long. Fruit pink or red, round, 5-10mm.

K13456; 1700-3050m; I-V, IX-XII

Cedar forest or other types of drier upland forest; also in forest remnants such as fire-induced thickets.

Kaptonengit (Elgon), Mwathathia (KIK), Museset, Kaavagariet (KIP), Ol-Kirenyi (MAA), Nerkwa, Nerkwo (MAR), Mukondo, Muthangira (MER),

77. ONAGRACEAE

Annual or perennial herbs, sometimes woody near base. Agnew, in UKWF, gives a full account; I have decided to describe only the two really shrubby species.

1. LUDWIGIA

Leaves alternate; stipules minute or absent. Sepals 4-5, persistent on top of the elongate fruit. Petals 4-5, stamens 4-5.

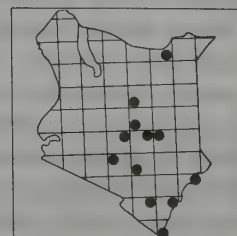
1. Sepals 3-6mm long

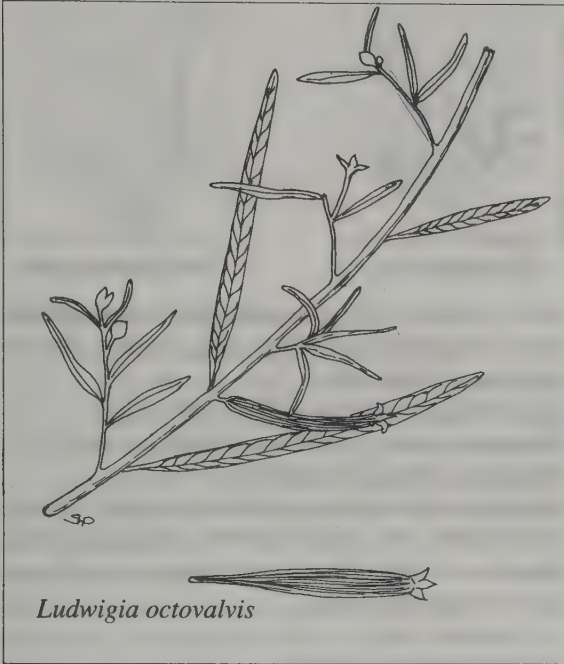
* Sepals 10-14mm long

1. *L. octovalvis*

2. *L. stenorrhapha*

Ludwigia octovalvis





Ludwigia octovalvis

1. *Ludwigia octovalvis* (Jacq.) Raven
(*Jussiaea suffruticosa* L. of FTEA)

Woody herb or shrub 0.5-3.5m. Leaves linear to narrowly elliptic, base cuneate, apex acute, 3-15 by 0.15-1.3cm, short-hairy. Flowers yellow, solitary and axillary; petals 4-28mm long. Fruit cylindric, 2-5.5 by 0.2-0.6cm.

K147; 1-2250m; III, V, VII-VIII, XII *

In rivers, ditches, pools, or on moist sites.

2. *Ludwigia stenorraphe* (Brenan) Hara

Shrubby herb 1-3m. Leaves as in *L. octovalvis*. Flowers yellow, axillary and solitary; petals 6-16mm long. Fruit cylindrical, 1-4 by 0.15-0.4cm.

K457; 650-1350m; -*

Known from swamps near Mumias, near Kiambu, and at Lake Jipe.

§1. THYMELAEACEAE

Bark with strong fibres. Leaves alternate or opposite, without stipules. Inflorescences various; flowers bisexual with long tubular calyx, often articulated above the ovary; calyx lobes often coloured, 4-5, the petals alternating with them. Stamens (except in *Struthiola*) in 2 whorls. Fruit usually included in the persistent calyx-base.

1. Leaves heath-like: linear, 5-20 by 1-3mm

4. *Struthiola*

- * Leaves not heath-like 2

2. Leaves opposite 3

- * Leaves alternate 4

3. Upland species (1450-2400m); flowers terminal

2. *Gnidia subcordata*

- * Coastal species (1-450m); flowers axillary

5. *Synaptolepis*

4. Flowers in dense terminal heads surrounded by bracts; leaves 5-20mm wide **2. *Gnidia***

- * Flowers axillary, or in loose umbels; leaves 20-60mm wide 5

5. Flowers/fruits 1-2, axillary (Taita Hills)

1. *Dicranolepis*

- * Flowers/fruits several, in umbels (Central & West) **3. *Peddiea***

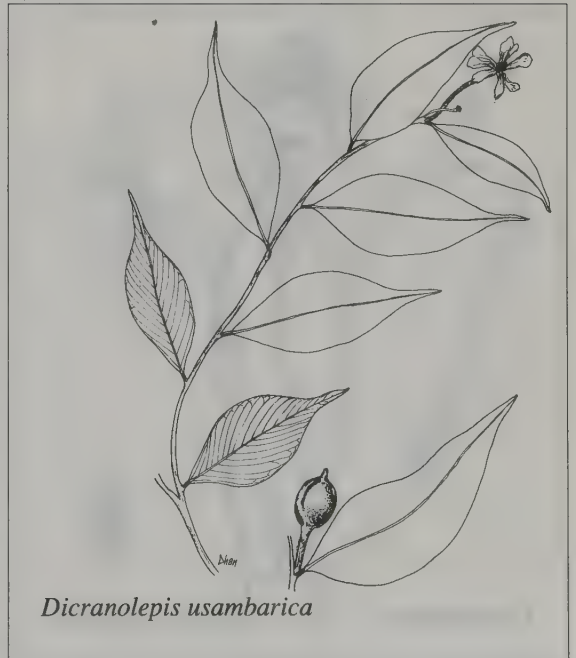
1. DICRANOLEPIS

Dicranolepis usambarica Gilg

(*D. sp.* of KTS)

RARE

Shrub 1-3m (or tree to 6m). Leaves ovate or elliptic, base cuneate or obtuse, apex long-acuminate, 5-9 by 2-4.5cm, glabrous; veins close and parallel. Flowers white, 1 or 2 and axillary; corolla tube 20-30mm, lobes 6-12mm long. Fruit red, ellipsoid, 10-13mm long. K7; 1400-1850m; II, VII, IX-X *



Dicranolepis usambarica

Moist forest; known from Mbololo and Ngangao forest in Taita Hills.

2. GNIDIA

Inflorescences terminal or axillary, in dense heads surrounded by bracts, or in fascicles; flowers with long calyx tube and coloured calyx-lobes, alternating with small petals. Fruits small, hidden in persistent base of the calyx.

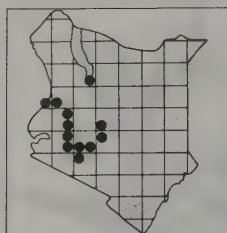
1. Leaves opposite; flowers white or cream, in bunches without bracts **4. *G. subcordata***
- * Leaves alternate; flowers orange, in heads surrounded by bracts **2**
2. Inflorescences with 6-12 flowers **3. *G. latifolia***
- * Inflorescences with 20-70 flowers **3**
3. Young branches densely tomentose; alt. 1200-2150m **2. *G. lamprantha***
- * Young branches finely pubescent; alt. 2250-3300m **1. *G. glauca***

1. *Gnidia glauca* (Fresen.) Gilg (*Lasiosiphon glaucus* Fresen.)

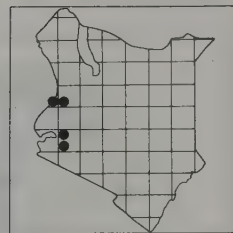
Shrub or tree 1.5-9(15?)m. Leaves alternate, but appearing as in a rosette, elliptic or slightly obovate, base narrowly obtuse, apex acute, 3-7 by 0.6-2cm, finely pubescent or glabrous. Flowers yellow or or-



Gnidia glauca



Gnidia glauca



Gnidia lamprantha

ange, in dense, many-flowered heads surrounded by bracts; calyx-tube 10-14mm long, corolla lobes 1-3mm long. Fruit hidden.

K123456; 2250-3300m; II-III, V-XII (XII)

Cedar/podo forest margins to bamboo zone, giant heath zone, *Hagenia* woodland.

Muchingiri (KIK), Mirrisa (MAR), Ol-keleliet (MAA), Kiris (MAR), Kapkarasiet (NAN), Sengewa (SEB), Mondurmi (SAM). Bark fibres said to be poisonous, used for rope and thread.

2. *Gnidia lamprantha* Gilg

[*Lasiosiphon lampranthus* (Gilg) HHW Pearson]

Shrub, 2-4.5m. Leaves elliptic or slightly obovate, base obtuse, apex acute, 2-5 by 0.5-1.2cm, densely pubescent, becoming glabrous with age. Flowers yellow or orange, in dense many-flowered terminal heads; calyx tube 8-12mm, petals 1-1.5mm long. Fruit hidden.

K35; 1200-2150m; I-II, VIII-XII *

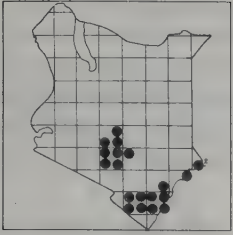
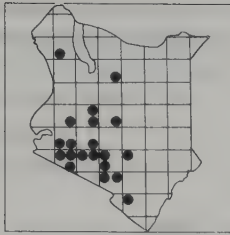
Woodland or evergreen bushland on rocky hillsides. Masiat (KIP), Singorowet (SEB).

3. *Gnidia latifolia* (Oliv.) Gilg

[*Lasiosiphon latifolius* (Oliv.) Brenan]

Shrub or less often small tree, 1-5m; often with whippy branches. Leaves elliptic, base cuneate, apex rounded or obtuse, 2-5.5 by 0.5-1.4cm, sparsely pubescent and glabrescent. Flowers orange, in dense many-flowered heads; calyx tube 13-16mm with 4-6mm long hairs in lower half, petals 0.2-0.5mm, or absent. Fruit hidden. K47; 1-1950m; I-XII (I, III, V, VIII)

Wooded or bushed grassland, deciduous bushland (slightly wetter sites), semi-evergreen bushland. Madiddi (BON), Mpawe (DUR), Mbalasizaka (GIR), Muvila, Musinziili (KAM), Mnunguwa-Mwitu (SWA), Mjarambiri (TAI). The bark fibre is used for rope; leaves and stems are poisonous, and the grass underneath these plants is not eaten by stock.

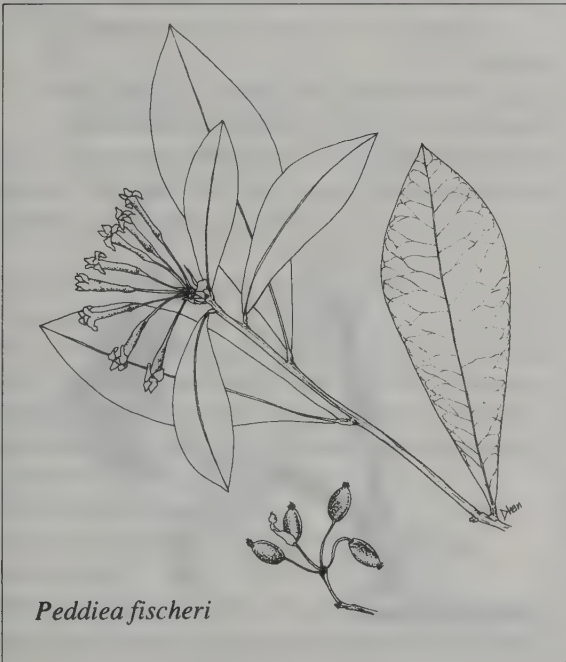
*Gnidia latifolia**Gnidia subcordata***4. *Gnidia subcordata* Meisn.**[*Englerodaphne subcordata* (Meisn.) Engl.]

Shrub 1-4m (rarely a small tree). Leaves opposite, ovate or elliptic, base cuneate or rounded, apex acute or rounded, 1-2.5(4) by 0.5-1.5cm, glabrous or nearly so. Flowers white or cream, in terminal few-flowered bunches; calyx tube 9-14mm, petals 1-3mm long. Fruits hidden.

K1234567; 1450-2400m; I-XII (V, XII)

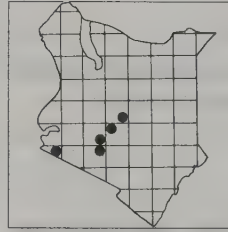
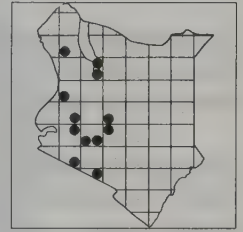
Dry forest (margins) or evergreen bushland.

Musinzili (KAM), Muchingiri (KIK), Kenchaiyet (KIP), Mugangagu (LUH), Olgirisiyai (MAA), Ger-riss (TUG), Enesthuwai, Esiwan (TUR). Bark fibres are used to make rope.

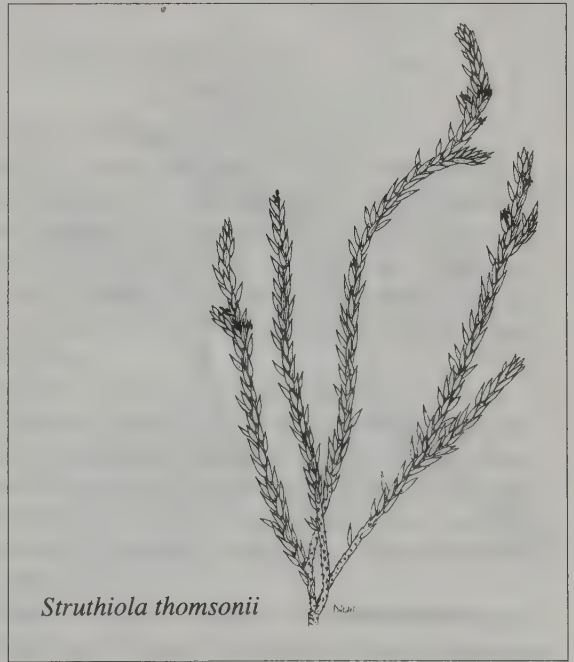
3. PEDDIEA***Peddiea fischeri* Engl.**(incl. *P. volkensii* Gilg)*Peddiea fischeri*

Shrub or tree 2-9m, evergreen; bark smooth, greybrown. Leaves elliptic to slightly obovate, base cuneate, apex obtuse, 6-19 by 2-6cm, glabrous. Flowers reddish brown or (rarely) yellow-green, in several-flowered terminal umbels; calyx-tube 8-15mm, lobes 1-2.5mm long. Fruit pinkish white, an ovoid drupe, 8-15 by 6-10mm, hairy at apex.

K345; (1350)1800-2300m; II, VI-VII, IX-X, XII *
Ocotea forest, also occasionally in bamboo zone.
The bark yields a strong fibre.

*Peddiea fischeri**Struthiola thomsonii***4. STRUTHIOLA*****Struthiola thomsonii* Oliv.**

Woody herb or shrub 0.4-3m. Leaves whorled or opposite, heath-like, linear, 5-18 by 1.5-3(5)mm, glabrous (or ciliate when young). Flowers white or yellow, solitary and axillary; calyx tube 6-12mm,

*Struthiola thomsonii*

petals 0.5-1mm long. Fruit hidden in persistent calyx-base.

K123456; 2000-3500m; I-III, V, VII-XII

Rocky (secondary) grassland, heathzone, *Hagenia* zone, evergreen bushland.

Nguirigiriyai (MAA), Lanengure (SAM). The root is chewed against cough by the Maasai.

5. SYNAPTOLEPIS

- | | |
|------------------------------|---------------------------|
| 1. Flowers in terminal cymes | 1. <i>S. alternifolia</i> |
| * Flowers axillary | 2. <i>S. kirkii</i> |

1. *Synaptolepis alternifolia* Oliv.

Similar to *S. kirkii*, but with ciliate petals. Recently found on Dzombo Mt and in Tana R. P.R., K7.

2. *Synaptolepis kirkii* Oliv.

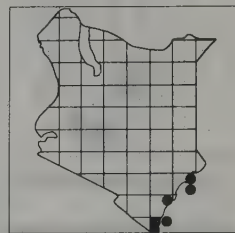
(incl. *S. longiflora* sensu KTS)

Shrub, usually climbing, 1-4.5m; roots tuberous, swollen. Leaves opposite, ovate, base rounded, apex acute, 2-4.5 by 1-2.5cm, glabrous. Flowers white, hanging, solitary or in bunches from upper leaf axils; calyx tube 11-16mm, petals about 0.5mm long. Fruit orange, ellipsoid, 11-14 by 6-9mm.

K7; 1-400m; III, VI-VII, IX-XI (XI)

Drier forest (margins), *Brachystegia* woodland.

Lama (BON), Mgirambira (GIR), Mkatu (SWA). Root employed against snakebite.



Synaptolepis kirkii

§3. NYCTAGINACEAE

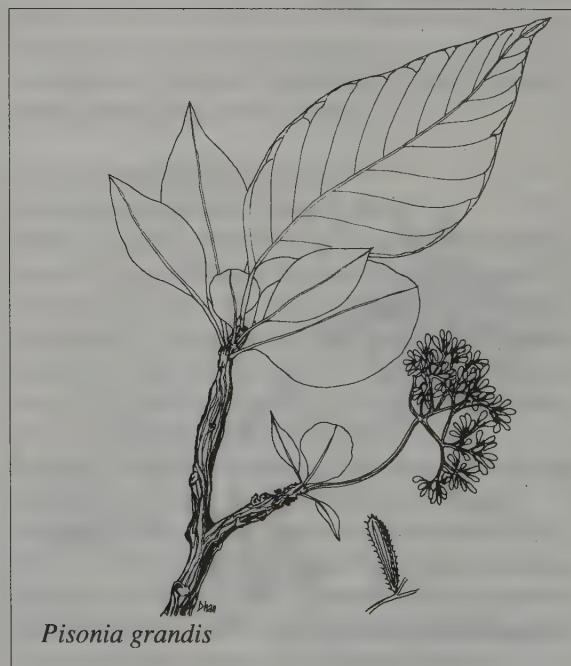
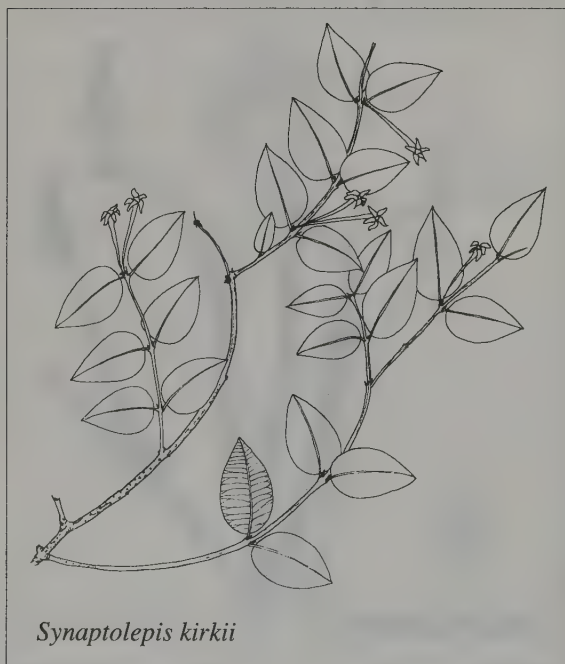
1. PISONIA

Leaves opposite. Inflorescence dense in flower, lengthening in fruit, cymose; flowers bisexual (*P. grandis*) or dioecious (*P. aculeata*); petals absent. Fruit ellipsoid, 5-ribbed, the ribs with sticky prickles; spread by birds.

- | | |
|---------------------------------|-----------------------|
| 1. Spiny liana; Kakamega Forest | 1. <i>P. aculeata</i> |
| * Unarmed tree; Coast | 2. <i>P. grandis</i> |

1. *Pisonia aculeata* L.

Liana to 30m, with pairs of recurved spines (3-7mm) at the nodes. Leaves opposite, ovate or elliptic, base cuneate, apex obtuse or shortly acuminate, 3-10 by



1.5-5.5cm, tomentellous when young but later glabrous. Flowers cream, in dense axillary cymes. Fruits brown, long-stalked, ellipsoid, 8-24 by 3-5mm, with 4-5 lines of sticky gland-tipped protuberances.

K5; collected once in Kakamega forest at 1550m; - *

2. *Pisonia grandis* L.

Tree 6-12m; bark silvergrey. Leaves (sub-)opposite, elliptic, base cuneate (cordate), usually unequal, apex obtuse to bluntly acuminate, 10-20 by 6-10cm, puberulous esp. on the veins. Flowers cream, in terminal dense cymose clusters. Fruit ellipsoid, about 12 by 2.5mm, with 5 ribs bearing sticky prickles.

K7; collected only between Kikambala and Kijangwani; 0-5m; VII *

On coral outcrops close to the sea.

§4. PROTEACEAE

Trees and shrubs. Leaves in our species alternate, simple, entire, exstipulate. Flowers in terminal heads or spikes. Perianth regular, united. Fruit a nut; style persistent.

- | | |
|--|------------------|
| 1. Flowers in spikes; leaves petiolate | 1. <i>Faurea</i> |
| * Flowers in heads; leaves sessile | 2. <i>Protea</i> |

1. FAUREA

1. Leaves glabrous beneath, or partly (but never completely) hairy, less than 5 cm wide

2. *F. saligna*

- * Leaves densely and evenly pubescent beneath, more than 3.5 cm wide

1. *F. rochetiana*

Note: I feel uncertain about the correct names; "saligna" is a wide concept, and there seems to be a range of variation as to hairyness and leaf size.

1. *Faurea rochetiana* (A. Rich.) Pic. Ser.

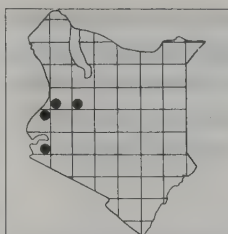
(*F. speciosa* Welw.)

Tree 3.5-10m; bark dark grey, deeply fissured. Leaves elliptic, base cuneate, apex acute, 7-17 by (2.5) 4-6cm, densely pubescent beneath. Flowers cream, with pink calyx, in 6-13cm long spikes; corolla 16-18mm long. Fruit small, round, very hairy.

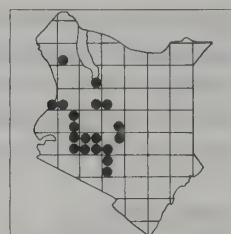
K235; 1600-2400m; VI, X*

Wooded grassland or rocky (*Protea*) bushland. Omosa (KIS)

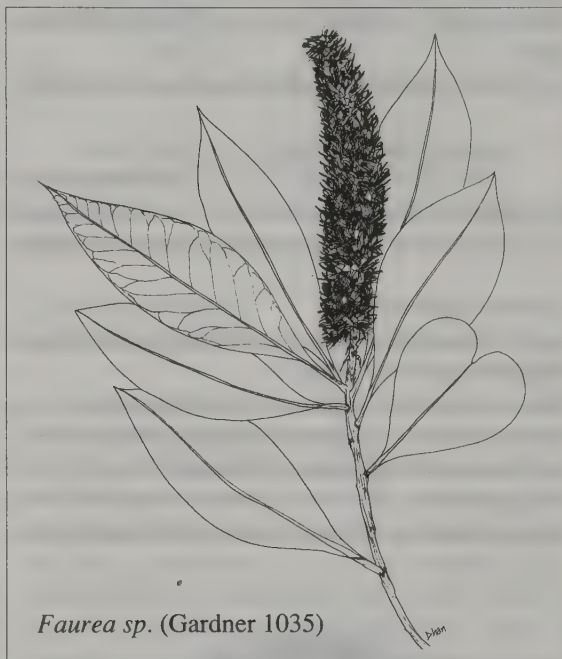
Note: intermediates with "saligna" occur in the Cherangani, the Nandi Hills and near Siakago (at 1200m).



Faurea rochetiana



Faurea saligna



Faurea sp. (Gardner 1035)

2. *Faurea saligna* Harv.

Shrub, or more often tree, 2.5-24 m; bark grey-black, deeply fissured. Leaves (narrowly) ovate to elliptic, base cuneate, apex acute, (5) 8-15 by 1.5-3.5 (4.5) cm, glabrous or nearly so (but see note under *rochetiana*). Flowers cream, with pink calyx, in dense spikes 6-14cm long; corolla 15-18mm long. Fruit small, round, very hairy.

K123456; 1050-3100m (see note); I-IX, XI.

Two forms are recognized by F. White: a "savanna" form occurring in wooded grassland (with *Combretum molle*) at altitudes between 1050-1800m; and an "afro-montane" form in forest margins and secondary (wooded) grassland derived from forest at (1800-) 2200-3100m.

Kikaati, Mukaati (KAM), Mutorothua (KIK), Kumuyekwe, Mugonju (LUH), Ol-Orten, Ol-Gerian (MAA), Sirite (MAR), Mosomboriet (NAN), Bwon-

get, Maakwet (SEB), Musomboriet (TUG), Maiyokwa (MAR), Markwa (CHE), Siriki (ELG), Kikerial, Ol-Bugui (SAM), Nkoma (NDO), Muyokwa (PKT). The roots are used against indigestion, and the bark decoction as a tonic; the timber is used for furniture.

2. PROTEA

Shrubs or small trees. Leaves coriaceous, flowers in terminal, solitary heads enclosed by many bracts. Fruit a densely bearded nut crowned by the persistent style.

1. Leaves narrowly elliptic, less than 3.3cm wide

2

- * Leaves ovate or elliptic, 3.5-6.4cm wide

3. *P. madiensis*

2. Bracts silvery-pubescent

2. *P. gaguedi*

- * Bracts rusty tomentose or glabrous

1. *P. caffra*

1. *Protea caffra* Meisn.

ssp. *kilimandscharica* (Engl.) Chisumpa & Brummitt
(*P. kilimandscharica* Engl.)

Shrub or tree, 0.6-3m. Leaves with red, often wavy, margin, narrowly elliptic or narrowly oblanceolate, base cuneate or obtuse, apex obtuse, 6-11 (-15) by 1-2.5cm, glabrous. Flowers white or cream, about 5cm long, pubescent near apex or glabrescent; bracts green,

often rusty tomentose outside; diameter of head 6-10cm. Fruit about 1cm, golden brown.

K234; (2500)3000-3800m; I-VI, IX, XII *

On rocky slopes in *Hagenia*, moorland or heath zone: Mt Kenya, Cheranganis, Elgon.

2. *Protea gaguedi* J.F. Gmel.

Shrub or tree 1.5-4.5(6)m. Bark black. Leaves bright red when young, narrowly elliptic or narrowly oblanceolate, base cuneate or obtuse, apex obtuse, 9-17 by 1.5-3cm, glabrous except when very young. Flowers about 5cm long, white-pink, densely pubescent; bracts pale silvery-green; diameter of head 4-10cm. Fruit about 1cm long, pale golden brown.

K123456; (1300?)1500-2900m; I-VIII, XI-XII

Scattered tree grassland, bushland.

Sugar Bush (STAND), Kiptarogon (MAR, CHE), Mugoiduet, Sumeyot (NAN), Barbowet, Simoyot (NDO), Enungomani (MAA), Etugnith (TUR).

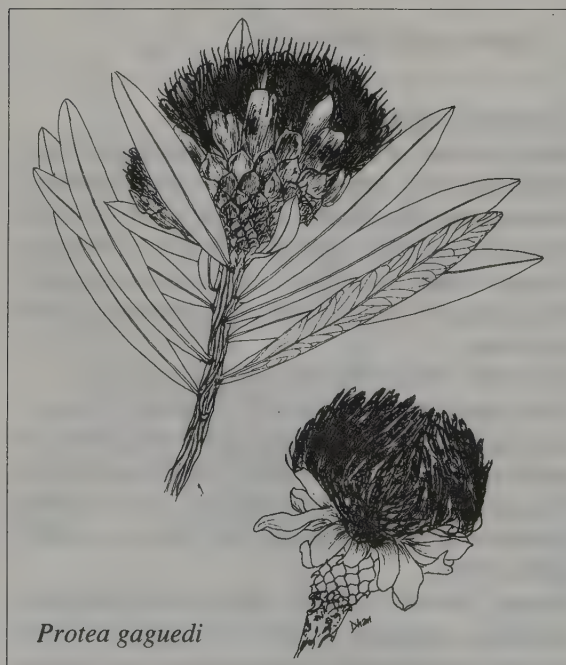
3. *Protea madiensis* Oliv. ssp. *madiensis*

Shrub or tree 1.5-4.5m, bark bright reddish brown. Leaves elliptic or ovate, base cuneate, apex obtuse, 9-17.5 by 3.5-6.5cm, glabrous or pilose. Flowers white or reddish, long-villous in lower half, about 4.5cm long; bracts white within, green outside, pilose or glabrescent; diameter of head 6-15cm. Fruit about 1cm long.

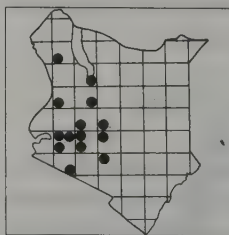
K35; 1650-1900m; I, VI-X, XII

Rocky hillslopes in bushland or wooded grassland (and once reported from Kakamega forest).

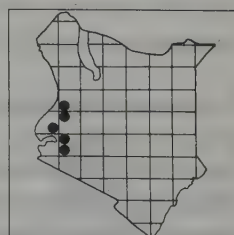
Kumulelalele (LUH).



Protea gaguedi



Protea gaguedi



Protea madiensis

§5. DILLENiaceae

(by Quentin Luke)

Leaves alternate, exstipulate. Flowers in showy cymes. Petals 3-5, stamens many. Fruit a follicle; seeds arillate.

1. TETRACERA

Leaves with a grooved petiole. Fruit of 3-5 free carpels; seed aril stringy, yellow-orange.

1. Shrub or small tree; leaves white-woolly hairy beneath **1. *T. boiviniana***
- * Climber or scandent shrub; leaves glabrous or slightly pilose **2. *T. litoralis***

1. *Tetracera boiviniana* Baill.

Shrub 2-7m; bark papery, flaking. Leaves elliptic or obovate, base cuneate, apex rounded, obtuse or mucronate, margin slightly serrate, the veins ending in small mucros, 4-10(13) by 2-4(6)cm, bullate, tomentose beneath. Flowers white in terminal or axillary few-flowered cymes; petals to 2 by 1.5cm. Fruit a cluster of red hairy obovoid carpels each 16 by 13mm, tipped by the persistent style.

K7; 1-450m; I-VI, VIII, XI-XII (IV, XII).

Coastal grassland, particularly in the Shimba Hills. Mpafafisi (SWA), Mukalagisi (DIG).

2. *T. litoralis* Gilg

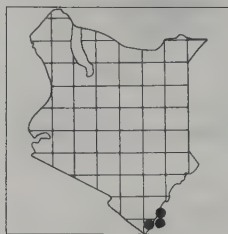
Liana to 10m, very similar to *T. boiviniana* except for the keyed characters, the almost glabrous fruit, and the non-bullate leaves.

K7; 1-500m; V-VI *

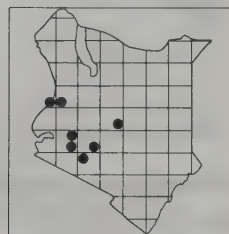


Tetracera boiviniana

Collected in Shimba Hills, Buda, Gongoni, Mangea, Arabuko-Sokoke, Gedi and Mida. Malafisi (SWA).



Tetracera boiviniana



Pittosporum lanatum

§§. PITTOSPORACEAE

Leaves alternate, without stipules. Petals and stamens

5. Fruit a 2-valved capsule; seeds red or black.

1. PITTOSPORUM

1. Leaves densely yellow-hairy beneath

1. *P. lanatum*

- * Leaves glabrous beneath, or nearly so **2**

2. Midrib impressed above **2. *P. mannii***

- * Midrib flat above, or impressed near the base only **3. *P. viridiflorum***

Note. The difference between the last two species are minimal, and I find them very hard to distinguish.

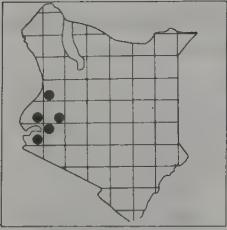
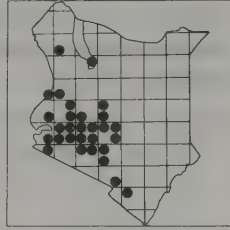
Dale FD 2408, from Katimok Forest (K3) might be either *P. viridiflorum* or *P. spathicalyx*, which has more than 4 seeds per capsule (as opposed to 4 or less in *P. viridiflorum*). I have not seen the specimen.

1. *Pittosporum lanatum* Hutch. & Bruce var. *lanatum* (*P. abyssinicum* Del.)

Tree 6-18m; bark ash-grey, scaly. Leaves elliptic to slightly obovate, base cuneate, apex obtuse, acute or bluntly acuminate, 5-10 by 1.5-3.5cm, yellowish-tomentose beneath. Flowers yellow, in short panicles; petals 6-10mm long. Fruit round, 6-8mm, tomentellous, with style on top, splitting into two.

K2346; 2100-2850m; I-II, IV *

Drier evergreen forest, often in isolated forest clumps. Musumara (KIK), Chemaroriet (KIP), Olengeraiyan (MAA), Chemnosa (MAR), Segersa (NAN). A bark infusion, which is emetic and purgative, is used against malaria by the Kipsigis.

*Pittosporum mannii**Pittosporum viridiflorum***2. *Pittosporum mannii* Hook.f.**ssp. *ripicola* (J. Léon.) Cuf.

Shrub or tree 1.5-6m; bark grey. Leaves elliptic or slightly obovate, base cuneate, apex (bluntly) acuminate, 6-17 by 2.5-5.5cm, glabrous or nearly so. Flowers white or cream, in terminal racemose panicles to 7cm long; petals 3-7mm long. Fruit orange, round with the style at the top, 5-10mm, splitting in two; seeds bright red.

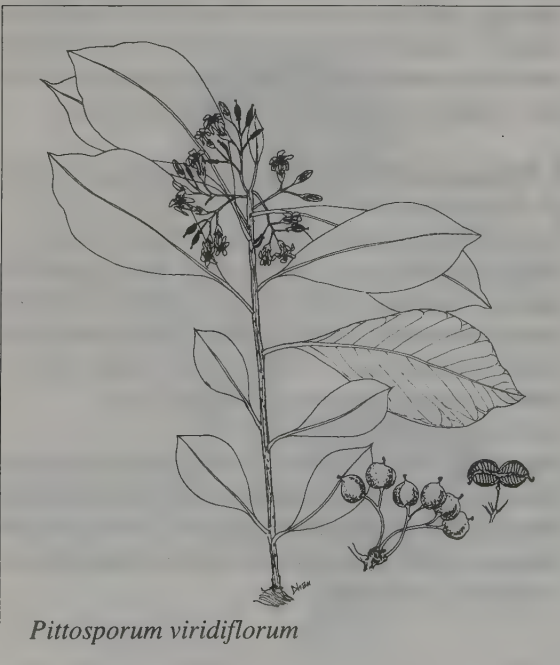
K35; 1450-2050m; IV, VI *

(Along rivers in) moist forests.

Achak (LUO), Lalondet (TUG). The fruit is edible; wood is used for building poles.

3. *Pittosporum viridiflorum* Sims ssp. *viridiflorum* (s.l.)

Tree (less often a shrub) 3-15m, evergreen. Leaves

*Pittosporum viridiflorum*

obovate, base cuneate, apex obtuse or bluntly acuminate, 5-14 by 2-5cm, glabrous or nearly so. Flowers white or cream, in short terminal dense panicles; petals 5-9mm. Fruit yellow or orange, round with the style on top 6-10mm, splitting in two. Seeds red, sticky.

K1234567; (900)1300-2550m; I-IV, VI-IX

Dry evergreen forest or riverine thickets/forests, wooded grassland; also in forest clump remnants.

Munyamati (KIK), Kaluma (KAM), Olengararia (MAA), Jemnoa (MAR), Kipkeriet, Chemngariot (KIP), Chemnoa (MAR), Munati (MER), Sitot (NAN), Tongutuet, Tabonet (NDO), Chelewo (PKT), Lukeruki (SAM), Segersa, Chemwororia (SEB), Kijulu (TAI), Yerkwa (TUG). The bark produces an emetic medicine used by the Pokot; wood used for building poles; root fibres used in basketry by the Taita.

93. FLACOURTIACEAE

(incl. SAMYDACEAE)

Trees or shrubs. Leaves alternate; petioles often thickened at base and/or apex; stipules generally present, rarely persistent. Inflorescences mostly axillary, of various types. Sepals 3-7; petals 3-8, free, or absent. Stamens 5-many. Fruit a berry or a capsule.

1. Plants spiny 2
- * Plants unarmed 5
2. Flowers with petals more than 10mm long;
fruits more than 5cm across 11. *Oncoba*
- * Flowers with petals less than 8mm long (or
without petals); fruits less than 2.5cm across 3
3. Flowers bisexual; petals 4-6; fruit 6-8mm
across 13. *Scolopia*
- * Flowers monoecious; petals absent; fruit more
than 10mm across 4
4. Stamens alternating with disk glands; ovary
mostly hairy 5. *Dovyalis*
- * Stamens surrounded by a ring of disk glands;
ovary glabrous 6. *Flacourtia*
5. Leaves 5-9-veined from base; stipules often
persistent, 3-10 by 2-18mm 14. *Trimeria*
- * Leaves not 5-9-veined from base; stipules
caducous or much smaller 6
6. Inflorescence (peduncle, pedicels) reddish,
even in fruit (Taita Hills) 4. *Dasylepis*
- * Inflorescence not reddish 7
7. Flowers without petals; fruit globose or

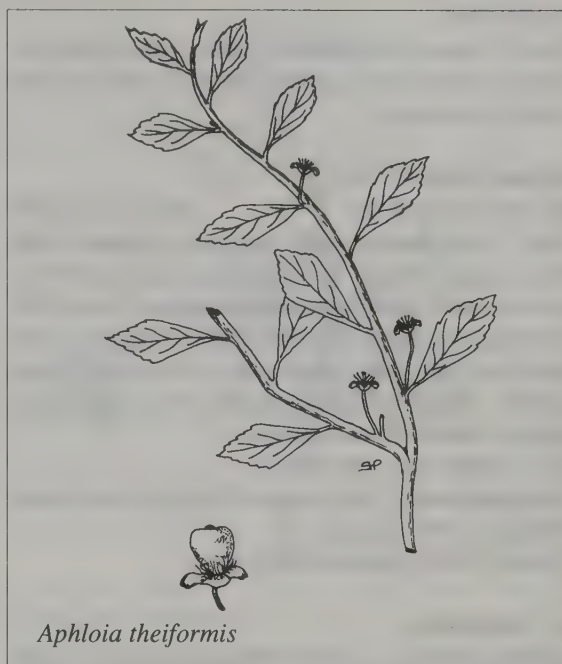
- elliptic, less than 2cm across 8
- * Flowers with petals; fruit either more than 2cm across, or with wings, or with spines, or with persistent sepals, petals and anthers 12
- 8. Flowers and fruits on very short axillary inflorescences 9
- * Flowers and fruits on axillary racemes 5-12cm long 2. *Bivinia*
- 9. Sepals 2-3mm long; fruit acute at apex 10
- * Sepals 5-7mm long; fruit rounded at apex 11
- 10. Leaves 8-22cm long, often with pellucid dots or streaks 3. *Casaeria*
- * Leaves 3-9cm long, without dots or streaks 10. *Ludia*
- 11. Flowers male or female; styles 2-8; fruit about 20mm across 5. *Dovyalis abyssinica*
- * Flowers bisexual; style 1; fruit about 5mm across 1. *Aphloia*
- 12. Petals more than 9mm long; fruit either spiny or more than 3.5cm across 13
- * Petals less than 8mm long; fruit not spiny, less than 3cm across 14
- 13. Petals 9-12 by 5-7mm; fruit curved with spines 9. *Lindackeria*
- * Petals 15-45 by 10-24mm; fruit non-spiny, 35-40mm across 15. *Xylotheca*
- 14. Petals 1.5-2.5mm long; fruits with sepals, petals and anthers 13. *Scolopia*
- * Petals more than 4mm long; fruits various 15
- 15. Fruits winged; petals 4-5 by 2-3mm; racemes 5-25mm long 7. *Grandidiera*
- * Fruits not winged; petals 5-8 by 2-7mm; racemes 6-250mm long 16
- 16. Racemes 6-70mm long, with upper flowers female and lower ones male; fruit 20-30 by 13-20mm 12. *Rawsonia*
- * Racemes 50-250mm long, all flowers bisexual; fruit 7mm across 8. *Homalium*

1. APHLOIA

Glabrous shrubs or trees. Stipules caducous. Flowers solitary or in few-flowered racemes or fascicles; sepals 4-5; petals absent; stamens many. Fruit a fleshy berry, about 6-seeded.

Aphloia theiformis (Vahl) Benn.

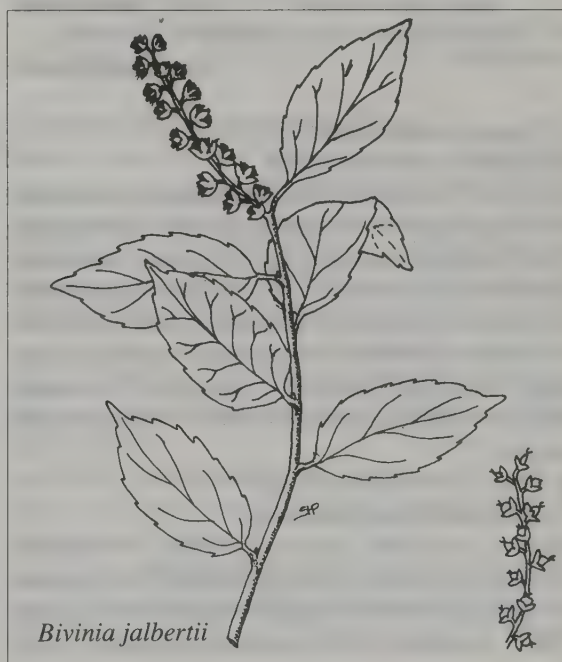
Tree 5-12m, evergreen; branchlets drooping. Leaves (narrowly) elliptic, base cuneate, apex obtuse or acute,



margin serrate, 3-8 by 1-3cm. Flowers cream or yellow, sepals about 5mm long. Fruit white, globose, about 5mm across.

K7; 1450-1800m; IX-X *

Upland moist forest in Taita Hills.



2. BIVINIA

Trees. Leaves exstipulate. Flowers in axillary racemes; sepals 5 or 6; petals 0; stamens many. Fruit a dehiscent capsule.

Bivinia jalbertii Tul.

(*B. jaubertii* of KTS)

figure: see p.103

Tree 7-20m; bark smooth, pale grey. Petiole bright red. Leaves elliptic or (ob-)ovate, base rounded to cuneate, apex acuminate, margin crenate, 5-16 by 3.5-6.5cm, glabrescent. Flowers white or yellow-green, sepals to 3mm long, in racemes 5-12cm long. Fruit globose, about 4mm across, crowned by the persistent styles. Seeds with cottony hairs.

K7; 1-200m; I-II, VII-VIII *

Evergreen forest. Only known (in Kenya) from Diani, Mrima and Witu forest.

Keked (BON), Matarauli (SWA).

3. CASAERIA

Shrubs or trees. Leaves pellucid-punctate, at least when young. Flowers in axillary fascicles or glomerules, each from a cushion formed by bracts. Petals absent. Stamens 8-10, alternating with hairy staminodes. Fruit a capsule, angled or ribbed, splitting from above.

1. Leaves often (sub-)serrate; anthers shortly hairy; tree to 40m **1. *C. battiscombei***

- * Leaves entire; anthers glabrous; tree to 15m

2. *C. gladiiformis*

1. *Casaeria battiscombei* R.E. Fries

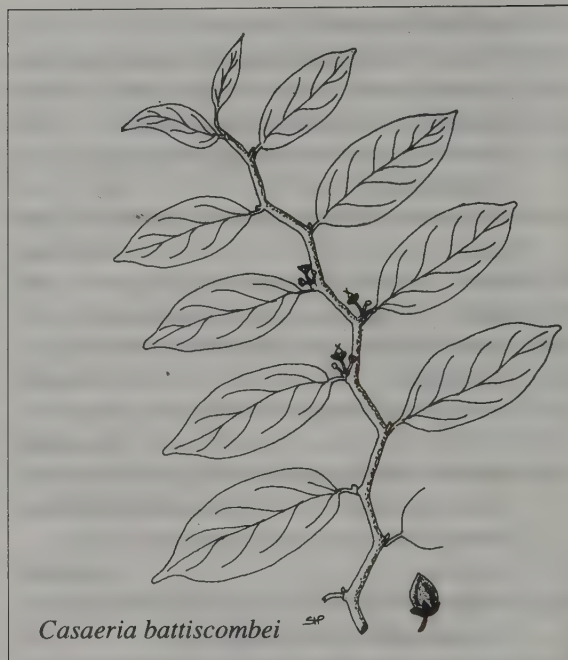
(*C. engleri* sensu KTS, p.p.)

Tree 3.5-40m; slightly buttressed at base; bark smooth or rough; branches in tiers, horizontal or drooping. Leaves oblong, base asymmetric, cuneate, rounded or subcordate, apex obtuse or acuminate, margin subentire, undulate or (esp. on saplings) serrate, 9-22 by 3-7cm, (sub-) glabrous. Flowers yellow-green, to 2mm long, in axillary fascicles. Fruit yellow to orange, ellipsoid with acute apex, 10-20 by 7-10mm, slightly angular.

K13456; 1350-2400m; IV, XII *

Upland moist forest (remnants)

Casaeria (STAND), Muirongi (KIK), Namasinzi (LUH), Liss (MAR), Munogo (MER), Cheptokoriet, Chapchabeyet (NAN), Chepcharaiyet (NDO), Sigikwa (PKT), Iltumbach (SAM), Seruwa, Seruondet (SEB),



Poponit (OKI). Used as timber.

2. *Casaeria gladiiformis* Mast.

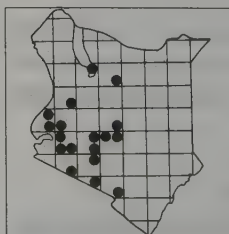
(*C. engleri* sensu KTS, p.p.)

Shrub or tree 4.5-15m; bark smooth, grey. Leaves elliptic or oblong, base cuneate and somewhat asymmetrical, apex obtuse or shortly acuminate, margin entire or undulate, 8-18 by 3-7cm, (sub-) glabrous. Flowers yellow-green, to 3mm long, in axillary fascicles or glomerules. Fruit yellow to orange, subglobose or ellipsoid, 10-18 by 9-12mm.

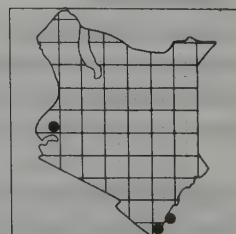
K357; 1-1700m; IV, XII *

Moist forest. Also reported from Mt. Kenya [Gardner 1881, in Sleumer BJBB 41: 424(1971), but I have not seen the specimen].

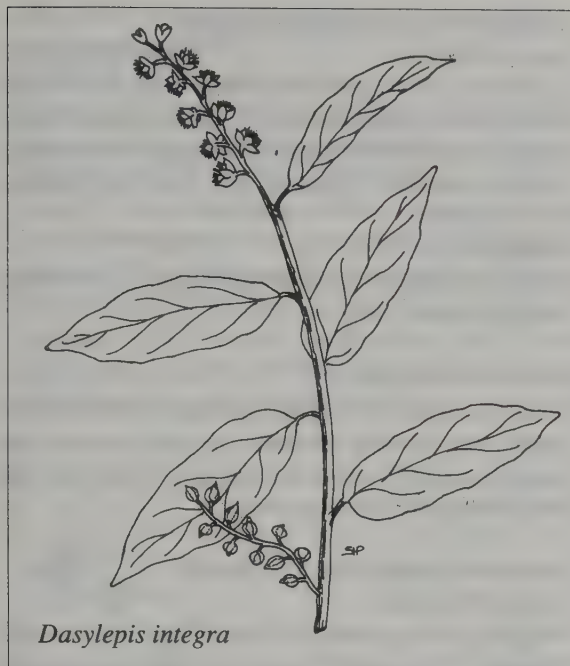
Muthandi (KIK). Timber used.



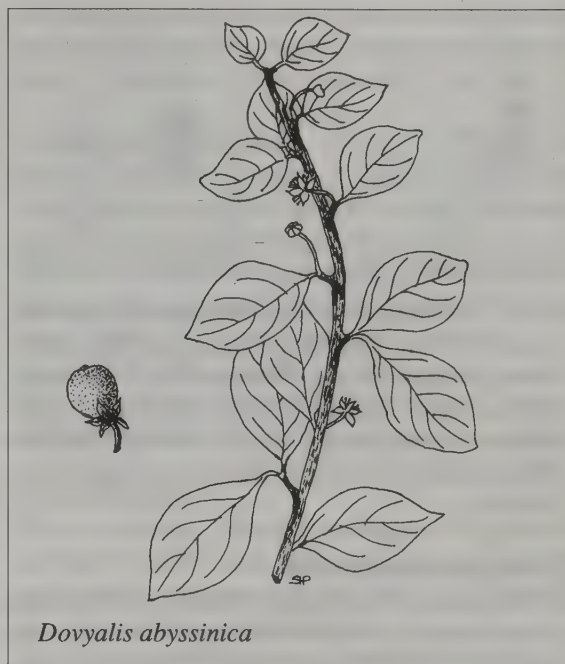
Casaeria battiscombei



Casaeria gladiiformis



Dasylepis integra



Dovyalis abyssinica

4. DASYLEPIS

Shrubs or trees. Leaves glabrous; stipules caducous. Flowers in axillary racemes, the lower flowers often male. Sepals 10-12, the inner 7-8 membranous and whitish; stamens 16-30. Fruit a capsule, splitting into 3 valves.

Dasylepis integra Warb.

Shrub or tree 5-12m; bark smooth and grey, flaking in old trees. Leaves elliptic, base cuneate to rounded, apex shortly acuminate, margin entire or serrate-dentate, 10-18 by 3-7cm. Inflorescence drooping, reddish; inner sepals white, to 6mm long. Fruit pale purple, subglobose, 1.5-2cm across.

K7 (Taita Hills); 1400-1800m; I, VII-X

Upland moist forest.

Mugungu (TAI).

5. DOVYALIS

Shrubs or trees. Leaves exstipulate, often pellucid-punctate. Flowers dioecious, solitary or in short racemes; sepals 4-6; petals 0; stamens 10-50. Fruit a fleshy berry.

1. Leaves glabrous

* Leaves minutely hairy

2. Spines to 1.5(2.5)cm; stamens 40-60; female

sepals not glandular

* Spines to 6(11)cm; stamens 20; female sepals glandular

3. Spines to 1.5(2.5)cm; widespread

* Spines to 5cm; coastal

4. Fruit brown-velvety

* Fruit almost glabrous

1. *D. abyssinica*

3. *D. macrocalyx*

D. abyssinica

4

4. *D. sp. nov.*

2. *D. hispidula*

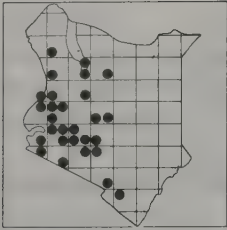
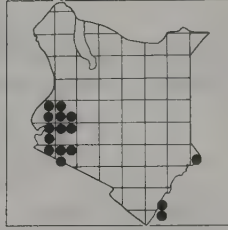
1. *Dovyalis abyssinica* (A. Rich.) Warb.

Shrub or tree to 13m; bark pale grey. Branchlets sometimes with axillary spines 5-15(-25)mm. Leaves shiny above, ovate or elliptic, base cuneate (rarely rounded), apex rounded or obtuse, margin entire to subserrate, 4-10 by 2-4 cm but mostly rather small; shortly pubescent on veins but glabrescent; petiole and veins reddish. Flowers yellow-green or greenish-white, 5-7mm long, in 1-3-flowered fascicles in axils of fallen leaves. Fruit yellow to red, globose, about 2cm across.

K1234567; 1450-2600m; I-IX, XI-XII

Upland moist or dry forest (edges), clump evergreen bushland, or riverine.

Kurrawa (BON), Maangwe (CHA), Kibini, Kipchibinya (ELG), Nukchat (NDO), Muirungi (KIK), Nokiat (KIP), Omokorogunywa (KIS), Songla, Sangana

*Dovyalis abyssinica**Dovyalis macrocalyx*

(LUO), Ol-Morogi (MAA), Mundariwa, Mintiriwa (MAR & TUG), Mendililwa, Mogonja (MAR), Muro (MER), Nukchat (NAN), Tamugot (OKI), Karatutwa (PKT), Limoro, Lomoro (SAM), Mundililwet, Mundariluluet (SEB), Mbuchi (TAI), Kimkiet Kinokuet (TUG), Kudar, Ngomwo (TUR). Fruit edible. Roots anti-VD.

2. *Dovyalis hispidula* Wild

Shrub or tree 3-6m; bark grey; branches with straight axillary spines to 5cm. Leaves elliptic or obovate, base cuneate or rounded, apex obtuse or rounded, margin entire or shallowly crenate, 0.8-3.5 by 0.6-2.7cm, sparsely hispidulous. Flowers yellowish, solitary or few in axillary fascicles; sepals about 2mm long. Fruit ? green, subglobose, 1-2cm across.

K7; 1-500m; XII *

Dry forest edges or thickets: Witu and Malindi area.

3. *Dovyalis macrocalyx* (Oliv.) Warb.

Shrub or tree 3-8m, much-branched, often multistemmed, often drooping; bark smooth, grey. Branches with straight axillary spines 1-6(-11)cm long. Leaves elliptic or ovate, base cuneate or rounded, apex obtuse or subacute, margin entire or minutely dentate/crenate, 4-9 by 1.5-4.5cm, glabrous. Flowers yellow-green, sepals (in male flowers) 2.5-4mm long (in female flowers) 3-6mm long. Fruit yellow or red, ellipsoid, to 20 by 10mm, with an enlarged red calyx with many glandular hairs.

K3567; 1-500(coast), 1200-2400m; III, VIII-X, XII * Moist, dry, and riverine forest; less often in wooded grassland or thickets.

Cheptabirbiriet (KIP), Shinapateria, Shiriezo (LUH), Olmorogo (MAA), Kapchobiniot (NAN), Tabirbirwo (TUG). Fruit edible.

Note: a form with narrow sepals occurs on the coast.

4. *Dovyalis* sp. nov. (Faden 70/244)

(sp. A of FTEA)

VULNERABLE

Small tree. Branches with axillary spines to 4.5cm. Leaves elliptic, base cuneate or rounded, apex obtuse, margin entire, 3-6 by 1-2.6cm, minutely puberulous. Flowers unknown. Fruit orange, about 1cm across, brown-velvety.

K7; 1-300m; -*

Only known from Gedi, Arabuko-Sokoke, and Mrima. Mdunga-tundu (GIR).

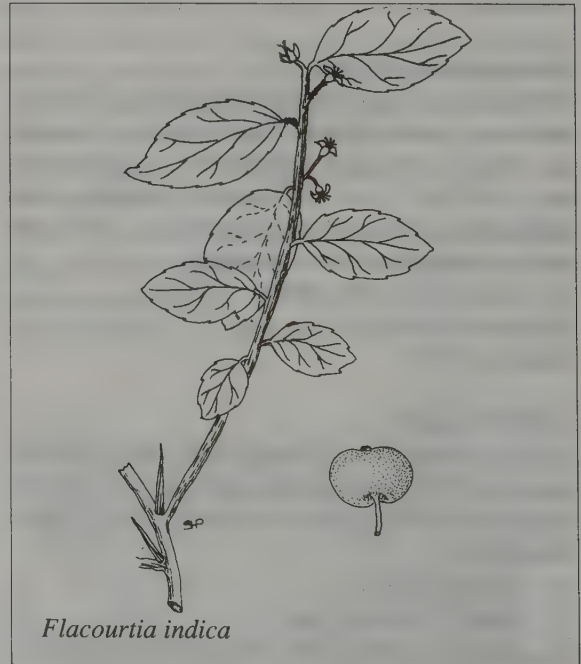
6. FLACOURTIA

Shrubs or trees. Leaves exstipulate. Flowers dioecious (occasionally bisexual) in short axillary racemes; sepals 4-5; petals 0; stamens 15-many; disk of free glands. Fruit a fleshy drupe.

Flacourtia indica (Burm. f.) Merrill

(*F. afra* Pic.-Ser.)

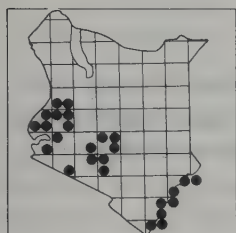
Tree or (climbing) shrub 2-9 (14)m; bark grey, rough. Branches with straight spines to 12cm long; spines sometimes branched. Leaves shiny above, elliptic or (ob)ovate, base cuneate or rounded, apex obtuse, rounded or acuminate, margin crenate or serrulate, 3-13 by 2-8cm, glabrous to pubescent. Flowers yellow-green, solitary or in racemes to 2cm, sepals to 2.5mm

*Flacourtia indica*

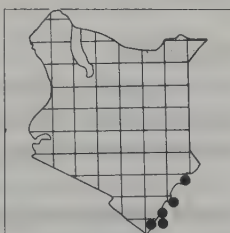
long. Fruit yellow or red, globose, to 2.5cm across, with persistent styles.

K234567; 1-2250m; II-VII, IX

Drier forest edges, wooded grassland or woodland, clump bushland, coastal evergreen bushland, riverine. Mugovigovi (SWA), Munyandoiya (DIG), Madangatunda (DUR), Mugereaka (GIR), Kiathani (KAM), Mroro, Mutahachu (KIK), Tungoroloet (KIP), Bukarambi (LUH), Ol-leleroi, Oldongururwo (MAA), Tungururwa (MAR), Muraga (MER), Lichet (NAN), Tungururiet (NAN, SEB), Mogodonya (SAN), Loloroi (SAM), Tingoswo (TUG), Echoke (TUR). Fruit edible; wood used to build Maasai huts.



Flacourtia indica



Grandidiera boivinii

7. GRANDIDIERA

Shrubs or trees. Leaves with caducous stipules. Flow-

ers in short axillary racemes, the top flowers bisexual, the lower ones male. Sepals 3, petals 5-7; stamens many. Fruit woody, with thin wings.

Grandidiera boivinii Jaub.

Shrub 1-4.5m (tree to 10m), evergreen. Leaves (narrowly) obovate, base cuneate, apex long-acuminate, margin entire or shallowly undulate, 8-25 by 3-7.5cm, glabrous or with the midrib hairy (rarely hispid). Flowers white, petals to 5mm long; racemes 5-25mm long. Fruit 4-6-winged, wings about 1cm long.

K7; 1-450m; I-V, VIII-XII

Coastal evergreen forest and riverine forest. Mchonga-Nyumba (SWA).

8. HOMALIUM

Trees or shrubs. Stipules caducous. Flowers in axillary or subterminal spike-like racemes, the racemes sometimes aggregated in panicles. Flowers 5-7-merous. Fruit a woody capsule.

1. Bark smooth; petals to 4mm long

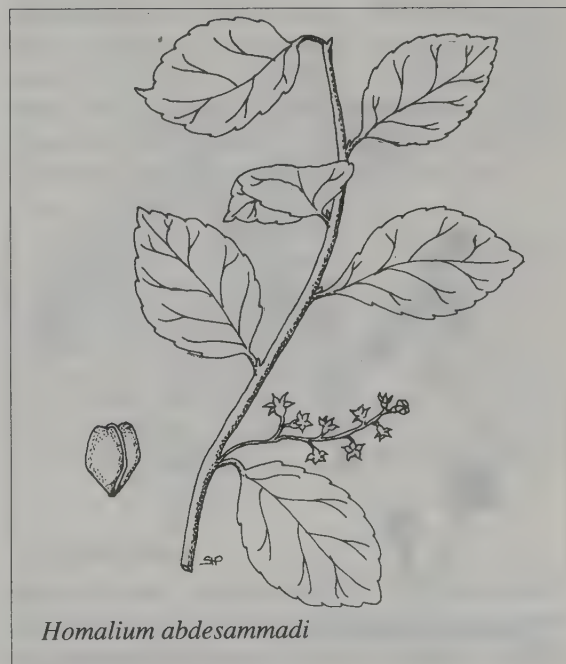
1. *H. abdesammadii*

* Bark rough; petals 6-8mm long, in fruit to 15mm long

2. *H. longistylum*



Grandidiera boivinii



Homalium abdesammadi

1. *Homalium abdessammadii* Aschers. & Schweinf.
Shrub or tree 5-18m, trunk sometimes fluted; bark smooth, grey. Leaves elliptic or (ob-)ovate, base cuneate to subcordate, apex obtuse or acuminate, margin glandular-crenate, 5-14 by 3.5-6cm, glabrous or hairy on veins and axils of veins. Flowers greenish-white, petals to 4mm long; panicles to 12cm long. Fruit with persistent sepals and style, to 7mm across. K7; 1-50m; VIII, XII *
Riverine (forest): Boni, Witu, Mombasa area, Diani.

2. *Homalium longistylum* Mast.
Medium sized tree; bark pale grey, rough. Leaves elliptic or ovate, base cuneate to rounded, apex obtusely acuminate, margin entire or coarsely crenate, 7-14 by 3-5cm, glabrous but sometimes with domatia. Flowers (colour unknown) 6-8mm long. Fruit small, with persistent sepals and petals to 15mm long. K7, once (*Joanna 3218*) collected in forest at Rabai.

9. LINDACKERIA

Shrubs or trees. Leaves stipulate. Flowers bisexual or male, in axillary racemes or panicles. Sepals (2-)3, petals 8-10; stamens many. Fruit a woody capsule, with swollen spines, dehiscent into 3 or 4 valves.

Lindackeria somalensis Chiov.

[*L. bukobensis* Gilg, *Lindackeria* sp. of KTS]

Shrub or tree 1-6 (12)m; bark rough, grey-black. Leaves elliptic to slightly obovate, base cuneate, apex obtuse to shortly acuminate, margin subentire to coarsely serrate (-dentate), 5-20 by 3-9cm, rather densely hairy when young but glabrescent. Flowers white; petals 9-12 by 5-7mm; flowers 3-7 in slender racemes or panicles. Fruit pale orange-red, subglobose in spines, 10-25mm across.

K7; 1-50m; -

Grassland or dense bushland, only collected near Kiunga.

Mfukuruku (BAJ).

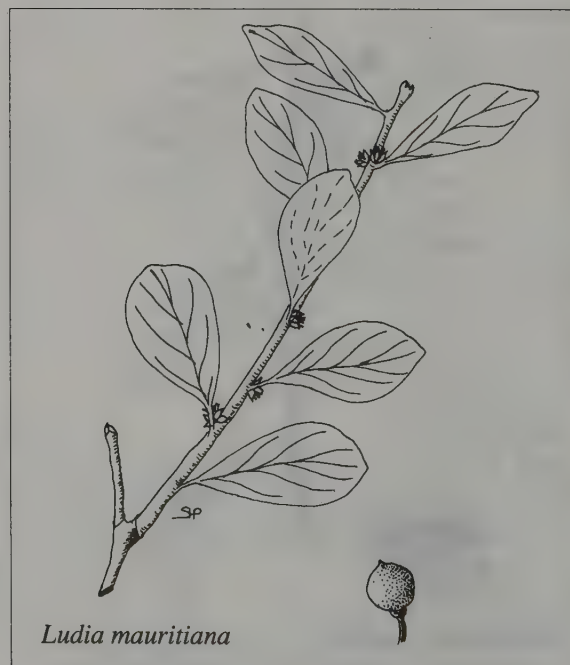
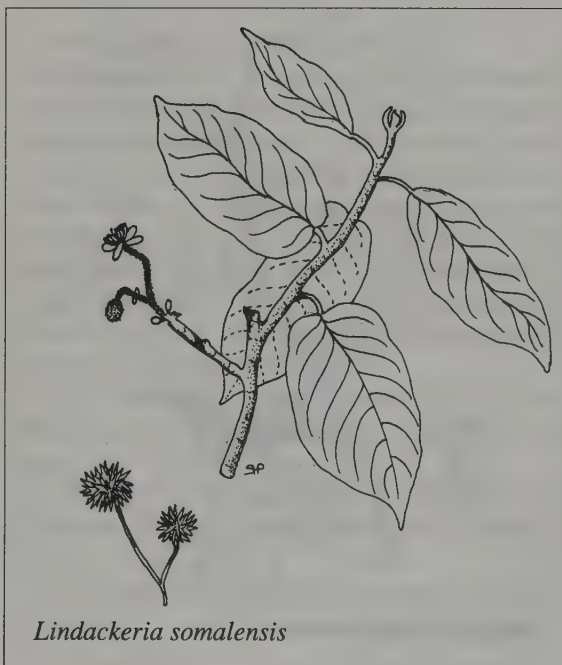
10. LUDIA

Trees or shrubs. Leaves exstipulate. Flowers small, mostly solitary and axillary. Sepals 5 or 6, petals absent; stamens many. Fruit a few-seeded berry.

Ludia mauritiana Gmelin

(*L. sessiliflora* Lam.)

Shrub or tree to 10 (15)m. Leaves shiny above, elliptic or obovate, base cuneate, apex obtuse, rounded or acute, 3-9 by 2-4.5cm, glabrous. Flowers yellow-white, about 2mm long with longer stamens. Fruit red,

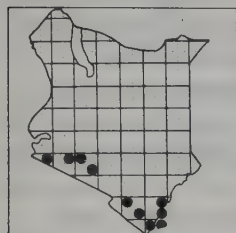


subglobose, apex pointed, 1-1.5cm across.

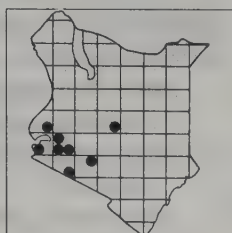
K467; 1-1750m; IV-V, XIII *

Dry evergreen forest (*Afzelia* at the coast, *Croton/Brachylaena* inland), coastal evergreen bushland, riverine forest.

Mfuwate (SWA), Mutsatsa (GIR), Hadisa (SAN).



Ludia mauritiana



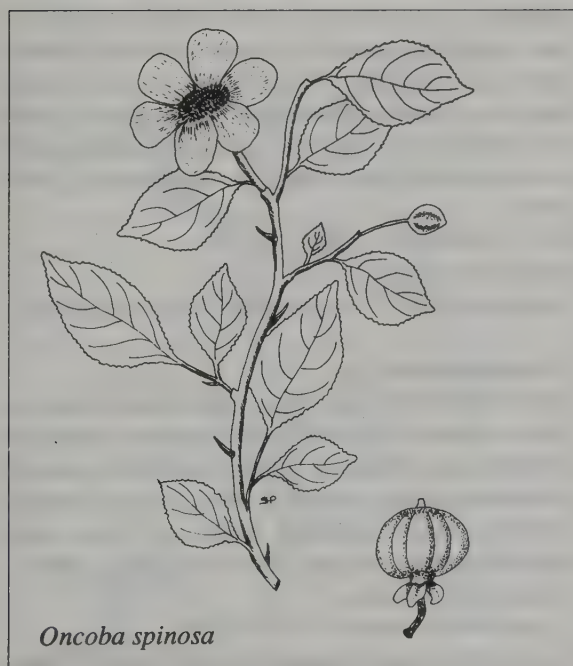
Oncoba routledgei

11. ONCOBA

Spiny shrubs or small trees. Leaves with caducous stipules. Flowers bisexual or male, solitary, axillary or terminal on short side shoots. Sepals 3-5, petals 8-15; stamens many. Fruit globose, many-seeded, with woody pericarp.

1. Leaves coarsely crenate-serrate (teeth more than 1mm); style apex branched

1. *O. routledgei*



Oncoba spinosa

- * Leaves faintly crenate-serrate; style apex unbranched

2. *O. spinosa*

1. *Oncoba routledgei* Sprague

[*O. spinosa* Forssk. var. *routledgei* (Sprague) Dale]

Shrub or tree to 12m; branches with axillary straight spines to 4cm. Leaves elliptic or ovate, base cuneate to rounded, apex shortly acuminate, margin coarsely serrate-crenate, 6-16 by 3-7cm, glabrous. Flowers white or pink, petals to 26 by 16mm. Fruit yellow, subglobose, 5-6cm across.

K456; 1500-2300m; I, III-VI, VIII *

Moist upland forest, often riparian.

Lowisto (NDO), Mwigigwa (KIK), Takungwuiet (KIP), Kabeya, Shirikali(LUH), Saa, Sao (LUO), Mwege (MER).

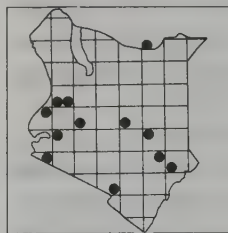
2. *Oncoba spinosa* Forssk.

Shrub or tree, 4-9m, much branched; bark smooth, light grey-brown. Branches with axillary straight spines to 7cm long. Leaves elliptic or ovate, base cuneate, apex shortly acuminate, margin finely crenate-serrate, 5-14 by 3-7cm, glabrous. Flowers white or pink, petals to 35 by 20mm. Fruit shiny redbrown, globose, 5-6cm across.

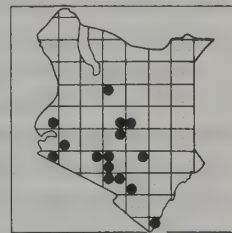
K123457; 1-1800m; I, IV-V, X, XII *

Riverine forest or -bushland.

Mawachandovu (BON), Akoku (BOR), Muchaagu (ILW), Muigaigwa, Kiage (KIK), Tungurwet (KIP), Saa (LUO), Mwege (MER), Shiko (ORM), Kukugho onyot (PKT), Muh'puju (PKM), Kimesan (SEB), Tongurua, Takuriya (TUG), Siko (SOM). The wood is used in furniture-making; the fruit is edible.



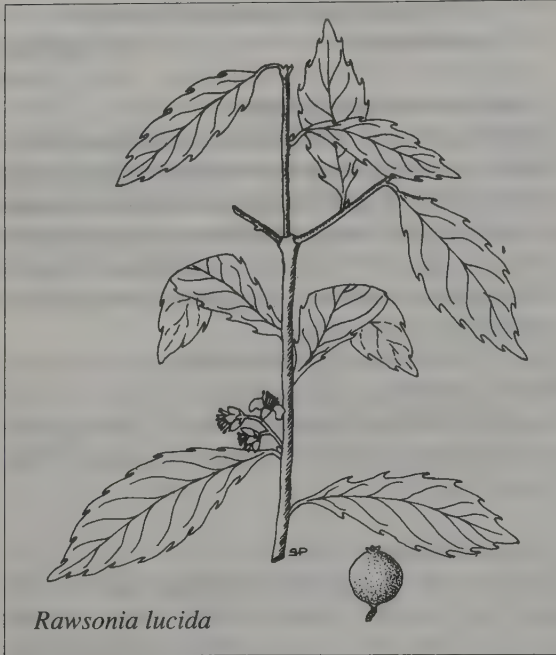
Oncoba spinosa



Rawsonia lucida

12. RAWSONIA

Shrubs or trees. Leaves stipulate. Flowers small, in axillary spike-like racemes, with lower flowers male, the upper ones bisexual or female. Sepals 4-6, petals



4-8; stamens many. Fruit a few-seeded hard berry.

1. Flowering spike with flowers (almost) to the base **1. *R. lucida***
- * Flowering spike on a 1-4cm long bare stalk **2. *R. reticulata***

1. *Rawsonia lucida* Harv. & Sond. (map on p. 109)
Shrub or tree 2-20m, evergreen; bark smooth, peeling in patches, reddish-brown. Leaves shiny, narrowly elliptic, base cuneate to rounded, apex acuminate, margin spinulose-serrate or rarely entire, 7-16 by 2.5-7cm, glabrous. Flowers white, in dense racemes; petals 6-8mm long. Fruit yellow to reddish, globose, 2-2.5cm across, the style persistent as a short point. K134567; 50-1800m; I-IV, IX, XI-XII *
Moist or evergreen forest, riverine forest.

Mukunguti (KAM), Mutendera (KIK), Chepokallial (KIP), Mshirakalu, Munamatolo (Luh), Olloodo entonoda (MAA), Mutemana (MER), Gelongilwa (TUG). The wood is hard and heavy, and excellent for walking sticks (Gilfrid, pers. exp.); the fruit is edible.

2. *Rawsonia reticulata* Gilg

Shrub or tree to 10m, similar to *R. lucida*; spikes pedunculate; flowers slightly smaller; fruit more ovoid, 2-3 by 1.3-2cm.

K7; collected once (Faden et al. 69/479) on Mt. Kasigau, in moist forest. Flowers in April.

13. SCOLOPIA

Shrubs or trees. Leaves with caducous stipules. Flowers small, bisexual, in axillary racemes; rarely some male flowers present. Sepals 4-6, petals 4-6; stamens many. Fruit a berry with the remnants of sepals, petals, and stamens at base and the style at the top.

1. Plant often spiny; flowers in few- to many-flowered racemes **2**
- * Plant unarmed; flowers 1-3, (sub-)sessile in leaf-axils **3**
2. Sepals about 2mm long; moist forest species **1. *S. rhamniphylla***
- * Sepals to 1.5mm long; dry forest or evergreen bushland species **4. *S. zeyheri***
3. Leaves entire or toothed over whole length; fruit subglobose, 20-25mm **2. *S. stolzii***
- * Leaves toothed in upper two-thirds; fruit ovoid, 5-8mm across **3. *S. theifolia***

1. *Scolopia rhamniphylla* Gilg

(*S. rhamniphylla* of KTS, incl. *S. stuhlmannii* sensu KTS)

Shrub or tree 3-15m; trunk sometimes with spines to 15cm long; branches with axillary spines, straight, to 6cm long. Leaves elliptic or (ob-)ovate, base cuneate, apex shortly acuminate or rounded, margin serrate-crenate or subentire, 5-10 by 2.5-5cm, glabrous or nearly so. Flowers yellow-white, petals about 2.5mm long, racemes few-flowered, 1-2cm long. Fruit pink to red to purplish-black, ovoid or subglobose, 6-7mm across.

K57; 1-1800m; III, VI-IX *

Moist forest (edges).

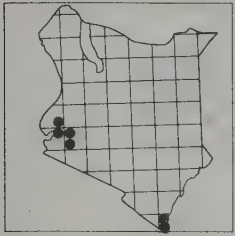
Ngovigovi (SWA), Tungulurwet (KIP), Saa (LUO).

2. *Scolopia stolzii* Gilg

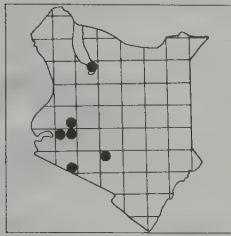
Tree 6-10m; bark pale brown, rather smooth, flaking. Leaves elliptic or slightly (ob-)ovate, base cuneate or rounded, apex obtuse or slightly acuminate, margin entire or subserrate-crenate, 4-14 by 2-8cm, glabrous. Flowers (colour unknown) small, to 1.5mm, with exerted stamens, solitary. Fruit red, fleshy, subglobose, 2-2.5cm across.

- var. *stolzii*: leaves 9-13 by 3.5-8cm.

K4, collected once (Faden 01.12.1967) near the base



Scolopia rhamniphylla



Scolopia theifolia

of Chania falls at Thika; alt. 1460m.

- var. *riparia*: leaves 3-8 by 1.5-3.5cm.

K6, collected once (Faden et al. 71/947) on Emali Hill at about 1700m; XII*

3. *Scolopia theifolia* Gilg

Shrub or tree 5-15m; bark smooth, pale grey. Leaves elliptic or slightly (ob-)ovate, base cuneate, apex obtuse or rounded (acute), margin rather shallowly subserrate-crenate in upper two-thirds, 3-6.5 by 1.5-3cm, glabrous. Flowers about 2mm long, 1-3 together. Fruit red to purple, ovoid, 10-13 by 5-8mm.

K13456; 1700-2400m; III *

Upland evergreen clump bushland, evergreen forest. Muroro (KIK), Oleleroi/Oladarrarar (MAA), Lichet (NAN). Roots used against STD by the Maasai.

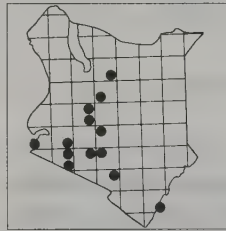
4. *Scolopia zeyheri* (Nees) Harv.

Shrub or tree 1.5-18m, often branching low down; bark pale grey, rough; young plants often scandent. Branches either unarmed or with straight spines to 10(20)cm, which may bear leaves and flowers. Leaves elliptic or (ob)ovate, base cuneate (obtuse), apex obtuse or rounded (acute), margin entire, repand, or bluntly crenate, 2-9 by 1-6cm, glabrous. Flowers white with yellow anthers; petals to 1.5mm long; racemes 1-3cm long. Fruit red to black, subglobose, fleshy, 7-8mm across.

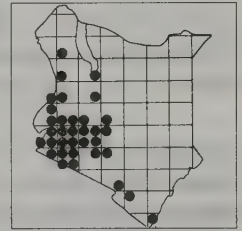
K134567; (1-)900-2300m; I-V, X-XII.

Dry evergreen forest, evergreen (clump) bushland, riverine.

Songoniet (NDO), Mutanga (KIK), Tungururwet (KIP), Achat/Okwalakwala (LUO), Oldungururwa (MAA). Fruit edible; wood used in house-building.



Scolopia zeyheri



Trimeria grandifolia

14. TRIMERIA

Shrubs or trees. Leaves 5-9-nerved from the base, stipulate. Flowers dioecious, small, axillary, solitary or in spike-like racemes; sepals 3-5, petals 3-5; stamens 10-15. Fruit a 3-valved capsule.

Trimeria grandifolia (Hochst.) Warb.

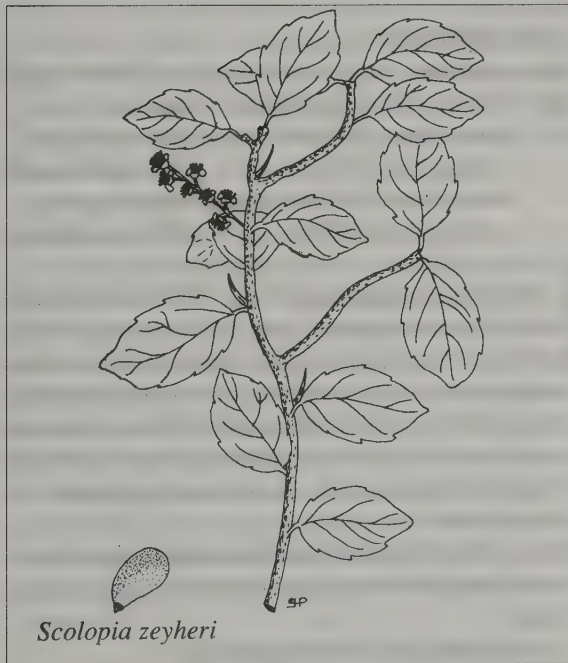
ssp. *tropica* (Burkill) Sleumer

(*T. bakeri* Gilg, *T. tropica* Burkill)

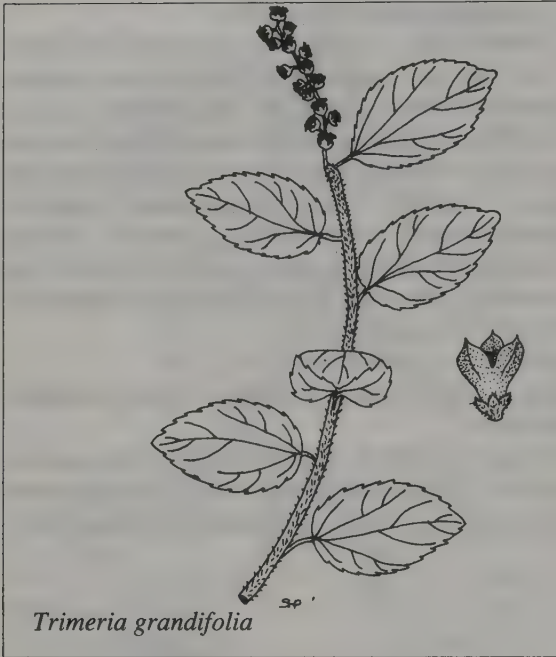
(Scrambling) shrub or tree 1.8-12m; bark pale grey, smooth. Leaves ovate or elliptic, base rounded or cordate, apex obtuse to shortly acuminate, margin glandular serrate-crenate, 3-12 by 2-8cm, densely soft-hairy, but sometimes glabrescent; stipules 3-10 by 2-18mm, semi-persistent. Flowers yellow-green, to 2mm long in glomerules on a spike-like raceme 2-9cm long. Fruit reddish-orange to black, angular-ovoid, 2.5-5mm long. Seeds black with a red aril.

K1234567; 150-2500m; I-XII

Dry evergreen forest, less often in moist, or evergreen



Scolopia zeyheri



(clump) bushland.

Mbani (DIG, SWA), Chepkarelyon (ELG), Muhindihindi (KIK), Chepkowet (KIP), Mutundu (LUH), Ol-osarie (MAA), Jepkerelony (MAR), Chepkererlong (NAN), Epelong (SEB), Chepkowet (KIP), Oledat (MAA), Mbeka (TAI), Eless (TUR), Mdaka (SAM), Kipkarnet (TUG). Roots used against STD.

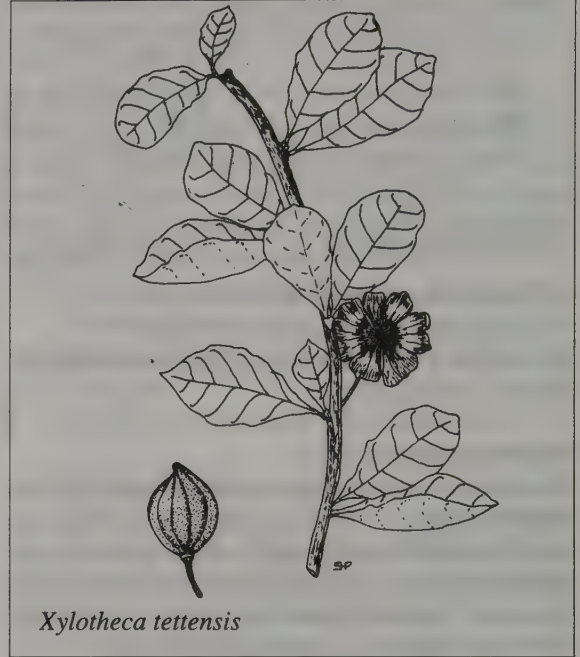
15. XYLOTHECA

Shrubs or trees. Leaves with caducous stipules. Flowers bisexual or male, solitary or in 2-3 flowered cymes, in leaf-axils or terminal on short branches. Sepals 3-4, petals 7-12; stamens many. Fruit a woody capsule, splitting into about 8 segments.

Xylothea tettensis (Klotzsch) Gilg var. *kirkii* (Oliv.) Wild

Shrub 1-4m. Leaves obovate, base obtuse to subcordate, apex rounded, margin entire or undulate, 6-11 by 2.5-5.5cm, glabrous. Flowers white, petals 1.5-5 by 1-2.4cm. Fruit black, subglobose or ovoid, 3.5-4.5cm long, splitting into a star-shape with red seeds on the margins.

K7; collected once (Dale 3879) at Ganda in *Hyphaene* scrub grassland.



95. CANELLACEAE

Trees; glabrous and aromatic. Leaves alternate, without stipules, simple and gland-dotted. Inflorescence cymose; flowers regular; stamens united into a tube. Fruit a berry.

1. WARBURGIA

Evergreen trees. Inflorescence axillary, flowers solitary or in 3-4. Sepals and petals 5, stamens 10.

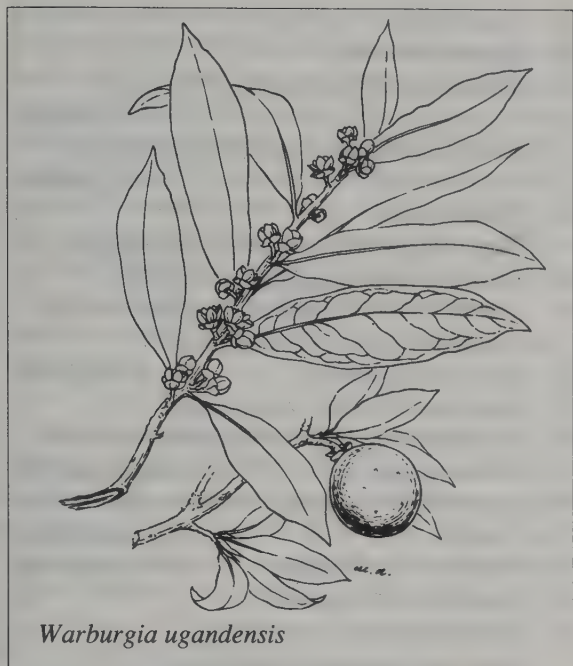
1. Mature fruit 12-15mm across. Coastal species, found below 400m **1. *W. stuhlmannii***
- * Mature fruit 30-50mm across. Inland species, found above 1500m **2. *W. ugandensis***

1. *Warburgia stuhlmannii* Engl. VULNERABLE

Tree 12-24m, evergreen; bark pale-coloured, reticulate-platy. Leaves very glossy above, elliptic, base cuneate, apex acute (and often somewhat asymmetrical), 3-9.5 by 1.5-3.5cm; petiole 3-5mm. Flowers green, or yellow-green, subtended by 3 bracts, 5-6mm long. Fruit green with waxy bloom, globose, 12-15mm across.

K7; 1-250m; XI *. Endemic to coastal Kenya (Kaembeni-Dida and near Kinango) and Msubugwe in Tanzania.

Coastal forest and wooded grassland.



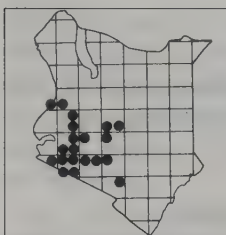
Mkaa (SWA); bark used in remedy for toothache and rheumatism.

2. *Warburgia ugandensis* Sprague ssp. *ugandensis*
Tree 4.5-30m, evergreen; crown rounded; bark smooth or scaly, pale grey or brown. Leaves very glossy dark green above, elliptic, often slightly falcate, base cuneate, apex acute or obtuse, 5-15 by 1.4-5cm, midrib often somewhat eccentric. Flowers yellow-green, 5-7mm long. Fruit when young ellipsoid, when ripe purplish and (sub)globose, 3-5cm across.

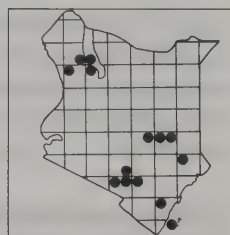
K3456; 1600-2400m; I-IX, XII

Riverine forest and drier upland forests; also in *Acacia xanthophloea* woodland and on termite hills in wooded grassland.

East African Greenheart (STAND), Muthiga/muthaiga (KIK), Omenyakige (KIS), Apache (LUH), Sogo-Maitha (LUO), Ol-sogonoi (MAA), Sekwan (MAR), Musunui (MER), Sogoet, Soke (KIP & TUG), Marut (NDO). Good timber for building and furniture, but not termite-resistant; bark and roots used in remedy for chest pains, common cold, malaria and toothache; fruit edible; all parts have hot peppery taste. The resin is used as glue. Now rare around Nairobi, due to overexploitation.



Warburgia ugandensis



Tamarix nilotica

98. TAMARICEAE

Trees or shrubs, with alternate, reduced, scale-like glandular leaves; exstipulate. Flowers 4-5-merous, small, regular. Fruit a capsule.

1. TAMARIX

Flowers in narrow racemes or spikes. Seeds with a hairtuft at one end.

1. Leaves reduced to a minute, sheathing base

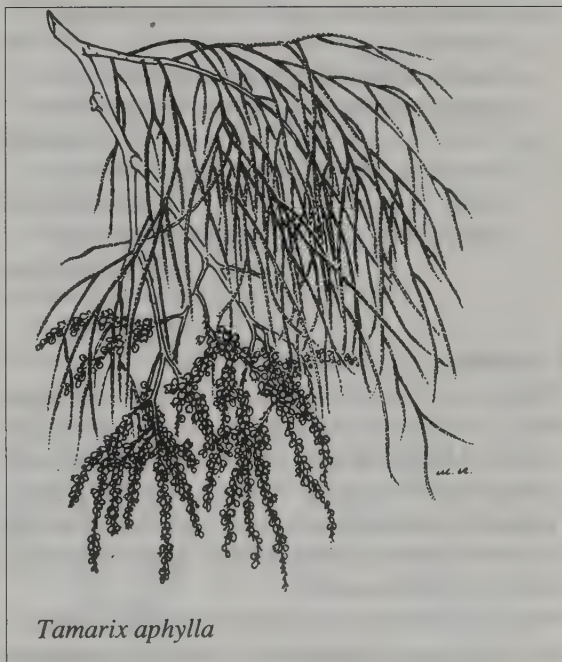
1. *T. aphylla*

* Leaves imbricate, 1-3mm long 2. *T. nilotica*

1. *Tamarix aphylla* (L.) Karst.

(*T. orientalis* Forssk.)

Tree to 5(10)m. Branchlets seemingly articulated, enclosed by minute leafbases. Inflorescence a raceme, 4-6cm long. Flowers white or pink, 2-3mm long.



Capsule 4-5mm long

K1; 200-400m; V, X *

Lugga edges, in deciduous bushland. Collected only twice, last in 1955, in extreme NE Kenya.

Dur (SOM).

2. *Tamarix nilotica* (Ehrenb.) Bunge

Shrub or tree 1-6m, evergreen, with whiplike stems; bark yellowbrown. Leaves sessile, concave, 1-3(-5)mm long. Inflorescence a raceme, 5-9cm long. Flowers white or pink, 1.5-2mm long. Capsule 4-5mm long.

K1247; 1-1050m; I, III, V, VIII-IX, XII *

Along rivers in woodland or bushland, growing on almost pure sand; once found on a coral rock with seepage.

Durtya jovu, Durtya wachaloh (ILW), Tamalisi, Uvula, Nzinzinda (KAM), Durte-galana (ORM), Dur (SOM), Echeme, Echekereng (TUR): Used by the Turkana in house-building and for firewood.

101. PASSIFLORACEAE

Climbers with tendrils. Leaves alternate, often with glands on petiole and blade; stipules small. Inflorescence cymose, often ending in a tendril. Flowers unisexual (except in *Passiflora*); sepals 4-5, petals 4-5, stamens 4-8.

1. Flowers bisexual; petals and ovary/stamens visible 2
- * Flowers unisexual; petals overtopped by the calyx, stamens/ovary often hidden in calyx 1. *Adenia*
2. Ovary long-stalked; petiole usually over 2cm long 2. *Passiflora*
- * Ovary hardly stalked; petiole 0-12mm long 3. *Schlechterina*

1. ADENIA

Climbers with tendrils (except in *A. globosa*), often with a swollen rootstock or lower stem. Leaves entire or lobed, with glands at the base and often on the blade as well. Tendrils axillary. Flowers in axillary cymes. Petals and stamens (in male flower) or petals and ovary (in female flowers) often hidden within the calyx. Fruit a 3-valved capsule.

NOTE: Swollen root or stem are present in *A. lanceolata*, *A. globosa*. Bottle-shaped trunk in *A. venenata*.

1. Stems armed 2
- * Stems unarmed 3
2. Spines closely set, less than 5mm apart 1. *A. aculeata*
- * Spines at the nodes, more than 2cm apart 4. *A. globosa*
3. Forest species 4
- * Dry bushland or wooded grassland species 11
4. Leafbase with a single stalked gland 5
- * Leafbase either with 2 sessile glands or (in *A. wightiana*) with 1 sessile gland 7
5. Leaf apex acuminate 2. *A. bequaertii*
- * Leaf apex rounded or emarginate 6
6. Leaves entire, with the venation clear above (Kakamega) 3. *A. cissampeloides*
- * Leaves entire or lobed, with the venation faint above 5. *A. gummifera*
7. Leafbase with 1 gland 13. *A. wightiana*
- * Leafbase with 2 glands 8
8. Leaf apex acute or acuminate 9
- * Leaf apex rounded (Nairobi area) 9. *A. metriosiphon*
9. Leafbase (at least in young leaves) peltate (coast) 8. *A. lindiensis*
- * Leafbase rounded or cordate 10
10. Flowers 16-37(male) or 12-25(female)mm long; fruit obovoid 10. *A. rumicifolia*
- * Flower 8-15(male) or 10-14(female)mm long; fruit rounded or ellipsoid 11. *A. schweinfurthii*
11. Sepals free 12
- * Sepals connate for $\geq 50\%$ 7. *A. lanceolata*
12. Female flowers 2.5-8mm, male flowers 3-17mm long; trunk not swollen 13
- * Female flowers 15-25mm, male flowers 30-56mm long, trunk swollen, bottle-shaped 12. *A. venenata*
13. Leaf without marginal glands; inflorescence tendrils absent; Moyale area 6. *A. inermis*
- * Leaf with some marginal glands; inflorescence tendrils often present; central & coastal Kenya 14
14. Leaf base with sessile gland; sepals 1-2mm long 13. *A. wightiana*
- * Leaf base with stalked gland; sepals 4-10mm long 5. *A. gummifera*

Note: I have omitted *Adenia stolzii*, as the record from Mt. Kenya is dubious (see FTEA)

1. *Adenia aculeata* (Oliv.) Engl.

Climber 5(-20)m, stems with spines on ridges; spines closely set, 4-20mm long. Tendrils 5-10cm long. Leaves absent for most of the year; 3-7-lobed, base cordate, 5-nerved from base, 147 by 1-7.5cm, often sandpapery. Flowers in small, (sub)sessile axillary fascicles; flowers 8-18mm long. Fruit broadly ellipsoid, apiculate, 10-15 by 8-13mm.

K1; 500-750m (*ssp. aculeata*) and K7; 1-50m [*ssp. manganiana* (Chiov.) de Wilde]; VI-VII, XI *

Deciduous bushland (north) or dune thickets (coast). Tafilil (BOR).

2. *Adenia bequaertii* Robyns & Lawalree

Somewhat woody climber 6-20m. Leaves entire or slightly lobed, ovate, base rounded to cordate, apex acuminate, 5-14 by 4-11cm, glabrous; 3-nerved from base; margin entire or dentate. Flowers in long-stalked cymes; flowers 7.5-17mm long. Fruit ovoid, 3-5 by 1.7-2.5cm.

K35; 1900-2250m; X *

Moist forest: SW Mau and Kitale.

Nyelwet (KIP).

3. *Adenia cissampeloides* (Hook.) Harms

Slightly woody climber to 25m. Leaves round to 5-angular, base cordate or truncate, apex rounded, 3-14 by 3-14cm, 3-nerved from base. Flowers greenish, in long-stalked cymes; flowers 6-15mm long. Fruit ellipsoid, 1.5-3.5 by 1.2-2.5cm.

K5; collected once in Kakamega forest (not seen by me; FTEA record)

Rainforest.

4. *Adenia globosa* Engl.

(*A. pseudoglobosa* Verdc.)

Shrub or climber 2-8m, more or less succulent, from a succulent tuberose stem 1.5-2.5m across. Stems with spines 0.5-8cm long. Leaves only on young stems,

entire or 3-lobed, 3-7 by 1-9mm. Flowers yellow-green, in shortly-stalked cymes; flowers 8-12(female) or 19-30(male)mm long. Fruit round or ellipsoid, 1-3 by 1-2cm.

K467; 1-1650m; I, V-IX, XI (VIII)

Dry bushland.

-ssp. *globosa*; K47; 1-1500m. Thorns 2-8cm long. Not in Rift Valley.

-ssp. *pseudoglobosa* (Verdc.) de Wilde; K46; 850-1650m. Thorns 0.5-2.5cm long. Only known from Rift Valley.

Mpaga (SWA), Mugarisi (DIG), Abbe (ORM).

5. *Adenia gummifera* (Harv.) Harms

Woody climber 20-30m. Leaves entire or 3-lobed, round or ovate, base cordate or truncate, apex obtuse or emarginate, 2-10 by 3-10cm, 3-nerved from base. Flowers greenish, in long-stalked cymes; flowers 5-8(female) or 11-17(male)mm long. Fruit ovoid or ellipsoid, 2.5-4 by 1.7-3cm.

K1457; 1-450(coast) and 900-1800m; II-IV *

Dry or moist forest or, less often, in moister bushland. Mugore, Mgore (GIR, DIG). A root decoction is employed against gonorrhoea by the Digo.

6. *Adenia inermis* (de Wilde) de Wilde

Climber to 8m from subterranean tuber, leafless for most of the year. Leaves entire, ovate or elliptic, base rounded or truncate and subpeltate, apex rounded or obtuse, 3-6 by 2-4cm, 3-nerved from base. Flowers in axillary fascicles, not stalked; flowers 5-6(female) or 10-11(male)mm long. Fruit more or less round, 1-1.5 by 0.8-1.3cm.

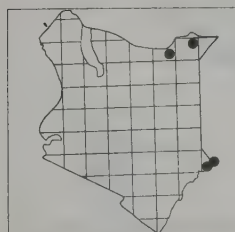
K1; 1000-1100m; *

Dry montane scrub; collected twice at Moyale.

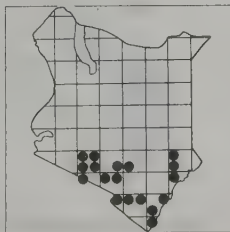
7. *Adenia lanceolata* Engl.

ssp. *scheffleri* (Engl.) de Wilde

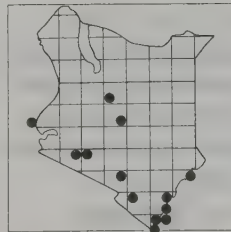
Climber 1-5(12?)m from large tuberous root. Leaves



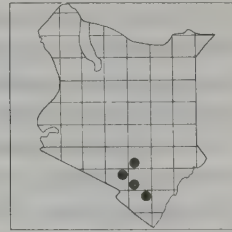
Adenia aculeata



Adenia globosa



Adenia gummifera



Adenia lanceolata

entire, elliptic or (ob)ovate, base cuneate or rounded, apex acute or obtuse, 1-15 by 0.5-5cm, sometimes 3-5-nerved from the base. Flowers pinkish in shortly stalked cymes; flowers 10-27mm long. Fruit ellipsoid, 2-4 by 1.5-2.5cm.

K47; 300-900m; VIII, XI *

Dry bushland or wooded grassland.

Kalumbu (KAM).

8. *Adenia lindiensis* Harms

Climber to 5m. Leaves entire or 3-lobed, oblong or broadly ovate, base (peltate when young) rounded, cordate or hastate, apex acute, 4-17 by 2.5-16cm. Flowers in 0.5-6cm stalked cymes; flower 22-30mm (male) or 10-15mm long (female). Fruit round or ellipsoid, 3-5 by 2.5-5cm.

K7; 1-300m; *

Evergreen forest (Shimba Hills, Buda, Gongoni).

9. *Adenia metriosiphon* de Wilde

RARE

Climber to 8m, from a tuberous woodstock. Leaves broadly ovate, base cordate to truncate, apex rounded, 2-17 by 1.5-12cm, 5-nerved from the base. Flowers yellow or white near the apex, in few-flowered shortly stalked cymes; flowers 15-35mm long. Fruit round, 3.5-5cm.

K46; 1400-1800m; I, III-V, X-XI * Endemic to a small area around Nairobi.

Dry evergreen forest or riverine forest/bushland.

10. *Adenia rumicifolia* Engl.

Woody climber 10-20m; older stems with fleshy projections in 3-5 rows, to 6mm long. Leaves entire or 3-5-lobed, ovate, base rounded, hastate or cordate, apex acuminate, 5-25 by 3-20cm, 3-5-veined from base. Flowers greenish, in long-stalked cymes; flower 12-37mm long. Fruit obovoid, 3-8 by 1.5-4.5cm.

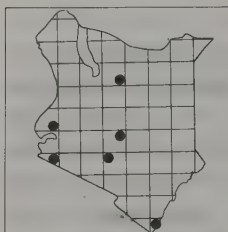
K14567; 1-1800m; V *

Moist evergreen (riverine) forest.

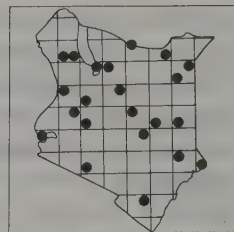
11. *Adenia schweinfurthii* Engl.

Woody climber up to 20m. Leaves round or (ob)ovate, base rounded or cordate, apex acuminate, 5-12 by 4-12cm, 3(-5)-nerved from base. Flowers yellow-green, in (0-6cm) stalked cymes; flowers 8-15mm long. Fruit round or ellipsoid, 3.5-5 by 2.5-4cm.

K5; collected once at Kaimosi near Kakamega. Forest.



Adenia rumicifolia



Adenia venenata

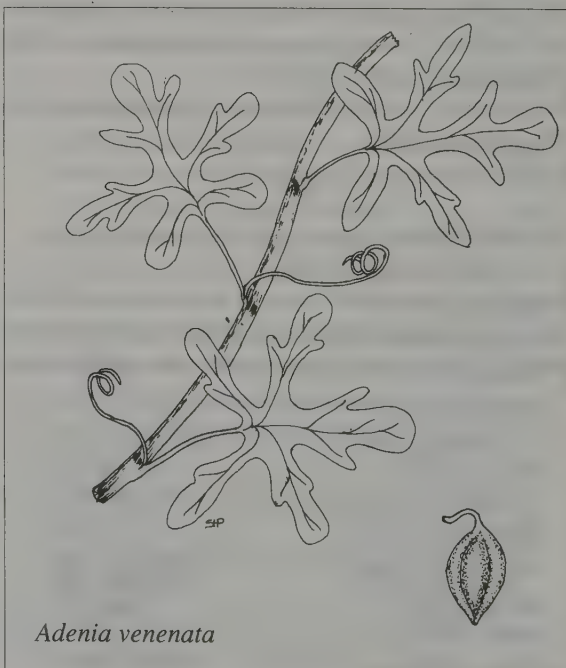
12. *Adenia venenata* Forssk.

Creep or climber 1-6m, from a bottle-shaped swollen lower trunk with many branches arising from its top. Leaves 3-5-lobed, base cordate, apex rounded, 1.5-12 by 1.5-13cm, 5-nerved from base. Flowers cream (reddish?), in shortly (-1.5cm) stalked cymes; flowers 15-24(female) or 30-56(male)mm long. Fruit ovoid-ellipsoid, with more or less acute apex, 2-4.5 by 1.5-3cm.

K123567; 1-1350m; I-III, V-VI, IX, XI

Deciduous bushland or -woodland.

Sarba Arb, Sangomsa (BOR), Obbe (GAB), Kiboroswe (MAR), Didonle, Shawla (SOM), Olmurrilengiron, Loisinkiriathoi (SAM). Fruit possibly edible.



13. *Adenia wightiana* (Wight & Arn.) Engl.
ssp. *aficana* de Wilde

Creeper or climber to 8m, from a tuberous rootstock. Leaves entire or deeply 3-5-lobed, broadly ovate, base cordate or truncate, apex acute or obtuse, 2-12 by 1.5-11cm, 3-5-nerved from base. Flowers yellow-green or cream, in long-stalked cymes; flowers 2.5-6mm long. Fruit red, round or ellipsoid, 1.5-3 by 1-2cm. K467; 900-1700m; I, IV, VIII *

Dry evergreen forest, riverine forest, dry woodland. Kali (KAM).

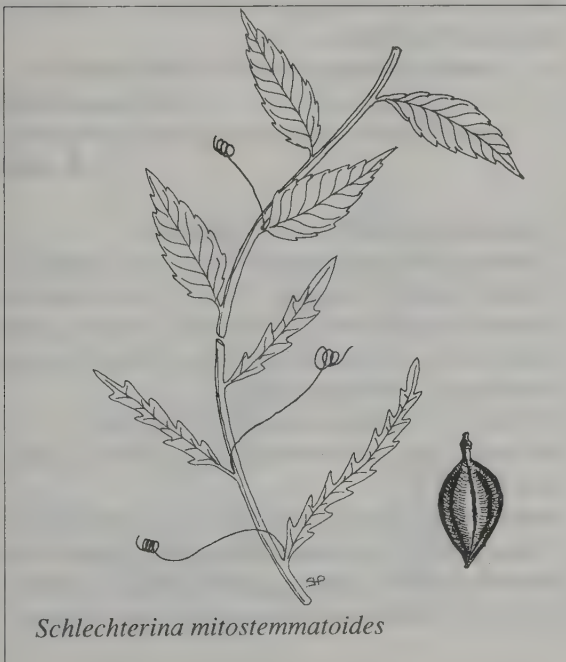
2. PASSIFLORA

Climbers with tendrils. Several species are cultivated, but not many go wild.

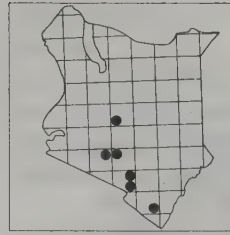
Passiflora mollissima (Kunth) Bailey: a climber to 20m with 3-lobed leaves, gone wild in Central and Northwest Kenya, in forest edges. Other species occasionally encountered in the wild are mentioned in FTEA.

3. SCHLECHTERINA

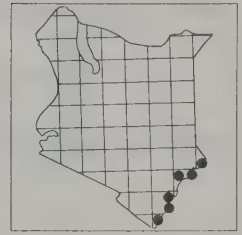
Schlechterina mitostemmatoides Harms
(Climbing) shrub 1.5-3m. Tendrils axillary, 3-10cm. Leaves when young linear and deeply dentately lobed,



Schlechterina mitostemmatoides



Adenia wightiana



Schlechterina mitost.

10-30 by 0.2-2cm, grading into mature leaves which are elliptic, base cuneate, apex acute or acuminate, 3-13 by 1-4.5cm, glabrous, entire or with dentate margins. Flowers white, in 1-3-flowered, axillary, subsessile cymes; petals 5-10mm long. Fruit ellipsoid with pointed apex, 4.5-5 by 2.5-3cm.

K7; 1-450m; I, III, V-VI, XI *

Evergreen forest, *Brachystegia* woodland, secondary bushland, dense bushland near Boni.

Muvurira, Mukiriango (GIR), Mganga-Lungo (SWA), Mzereru (DIG).

103. CUCURBITACEAE

Climbers with tendrils. Leaves alternate, with the tendrils taking the place of stipules. Flowers usually unisexual, monoecious, axillary.

Most cucurbits are herbaceous, although some species of *Coccinia*, *Eureiandra*, *Momordica*, *Mukia* and *Zehneria* may grow woody on their lower stems when older. I have treated only those species which are woody throughout.

- | | |
|---------------------------------|---------------------|
| 1. Plants spiny on green shoots | 3. <i>Momordica</i> |
| * Plants unarmed (see note) | 2 |

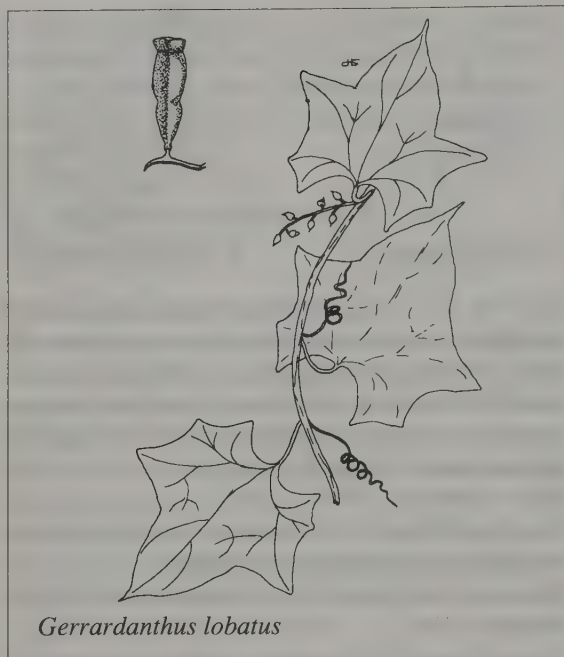
Note: *Zehneria anomala* has persistent petiole- and tendril- bases which become bluntly spiny on older woody stems.

- | | |
|---------------------------------|-------------------------|
| 2. Tendrils simple | 3 |
| * Tendrils bifid near apex | 1. <i>Gerrardanthus</i> |
| 3. Leaves sandpapery | 2. <i>Kedrostis</i> |
| * Leaves subsucculent, glabrous | 4. <i>Zehneria</i> |

1. GERRARDANTHUS

Climbers with tuberous roots and tendrils which are bifid at apex. Flowers dioecious. Stamens 5, 1-thecous, in 2 pairs and a single one. Fruit a hanging capsule. Seeds with a membranous wing.

- | | |
|---|---------------------------|
| 1. Moist coastal forest; leaves unlobed; stem not swollen | 1. <i>G. grandiflorus</i> |
| * Dry bushland or dry forest; leaves usually | |



lobed; stem at ground level swollen, bottle-shaped

2. *G. lobatus*

1. *Gerrardanthus grandiflorus* Cogn.

Climber to 10m. Leaves broadly ovate, base cordate, apex acuminate, 6-12 by 5-11cm, glabrous. Flowers dull orange, in panicles; petals unequal, 9-15mm long. Fruit 6-8 by 3-5cm, veined.

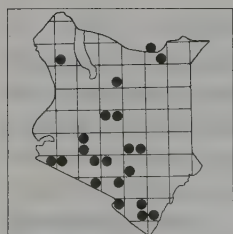
K7; collected once in Buda forest at 80m; VIII*
Moist forest.

2. *Gerrardanthus lobatus* (Cogn.) C. Jeffrey

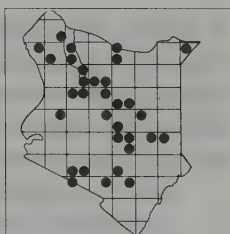
Climber to 6m. Leaves 3-5-lobed or unlobed, base cordate, apex acuminate, 3-14 by 4-12cm, glabrous. Flowers and fruits as in *C. grandiflorus*.

K123467; 350-1850m; IV-V, VIII-X, XII

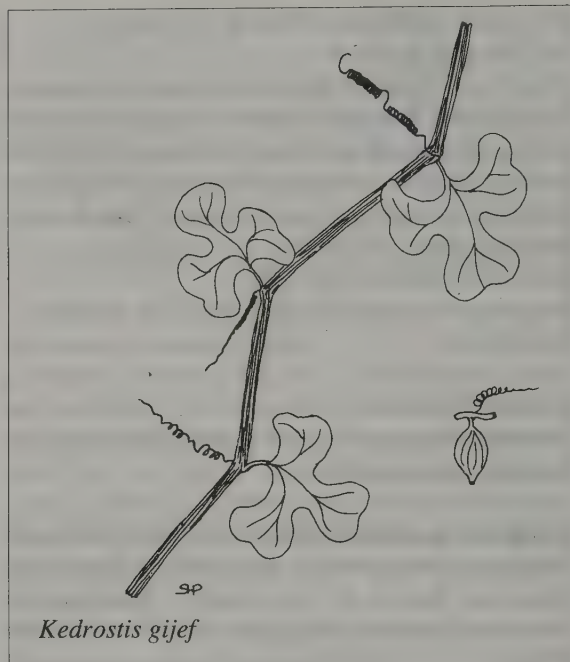
On rocky hills, in dry bushland or dry forest.



Gerrardanthus lobatus



Kedrostis gijef



Manareriat (KIP), Olaiserariel (MAA), Lokumai (TUR).

2. KEDROSTIS

Climbers with simple tendrils. Flowers dioecious, often present before the leaves. Stamens 5, 1-theous. Fruit a red fleshy berry.

1. Leaves 3-foliolate; twigs brownish when dry

2. *K. pseudogijef*

* Leaves simple; twigs usually reddish when dry

1. *K. gijef*

1. *Kedrostis gijef* (JF Gmel.) C. Jeffrey

Climber, 0.5-6m, with ridged stems. Leaves usually 3-5-lobed, margins toothed, 1-8 by 1-8cm, scabrid. Flowers yellow(-green), solitary or in clusters; petals 1-3mm long. Fruit orange or red, ovoid with a narrowed apex, 12-20 by 6-10mm.

K123467; 150-1350m; I-II, IV-VI, VIII-XII

Deciduous (*Acacia-Commiphora*) bushland or semi-desert scrub.

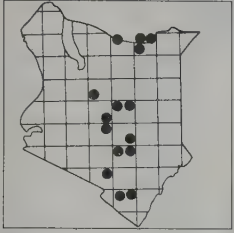
Gaalle (GAB), Gale, Choppi (BOR), Longurua (MAA), Chepyat (PKT), Sarkhudum (REN), Sokodume (SAM), Eiyarabos (TUR). Used as eye medicine by the Turkana; roots widely used to neutralize snake poison.

2. *Kedrostis pseudogijef* (Gilg) C. Jeffrey

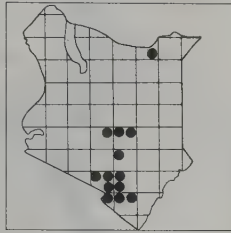
Climber to 12m, very much like *K. gijef* but leaves 3-foliolate; leaflets unlobed or 3-lobed, 1.5-7 by 0.5-4cm.

K147; 600-1150m; II-V, IX-XI

Acacia-Commiphora bushland; rarely in dry woodland.



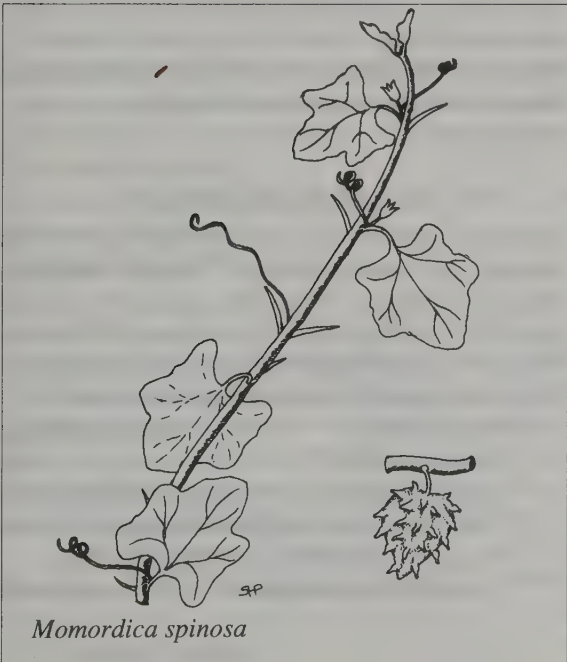
Kedrostis pseudogijef



Momordica spinosa

3. MOMORDICA***Momordica spinosa*** (Gilg) Chiov.

Shrub or climber 0.5-2m. Spines present in pairs at the nodes, to 4cm long; tendrils simple. Leaves broadly ovate, base cordate and decurrent, apex obtuse, 1.7-7 by 2-6cm, pubescent; stinks when crushed. Flowers yellow or greenish-cream, solitary or in bunches; petals 8-11mm long; stamens 3. Fruit yellow or



Momordica spinosa

orange, ovoid, covered in blunt fleshy spines, 3-7 by 2.5-4cm.

K1467; 250-1250m; II-V, VIII-X*

Dry deciduous bushland.

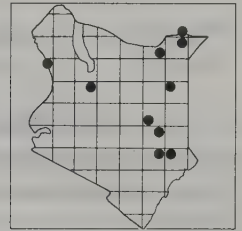
Middan-kajibwa (ORM), Gali, Medang, Gajibu (SOM). The fruit is edible.

4. ZEHNERIA***Zehneria anomala*** C. Jeffrey

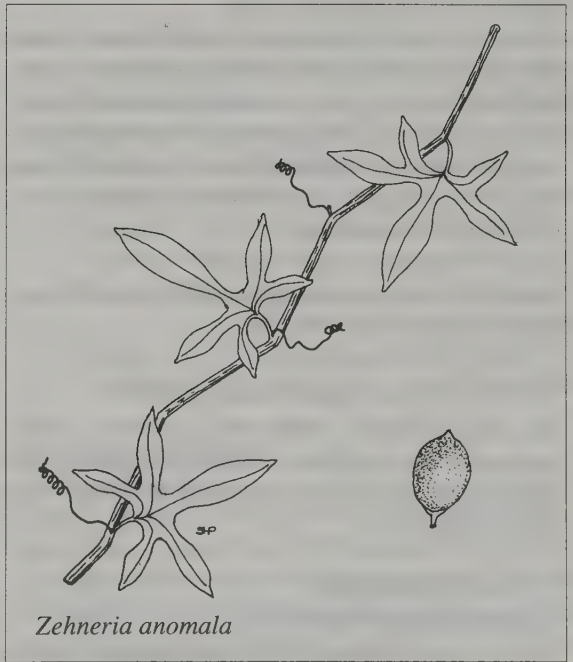
Woody climber 1.5-2.5m. Tendrils simple. Leaves subsucculent, 3-5-lobed, base cordate, apex acute, 0.8-6 by 1.5-6cm, glabrous. Flowers yellow-green, dioecious or monoecious, in clusters (male) or solitary (female); petals 1.5-2mm. Fruit red or orange, round, 8-10mm.

K127; 100-1300m; IV-V, XI-XII *

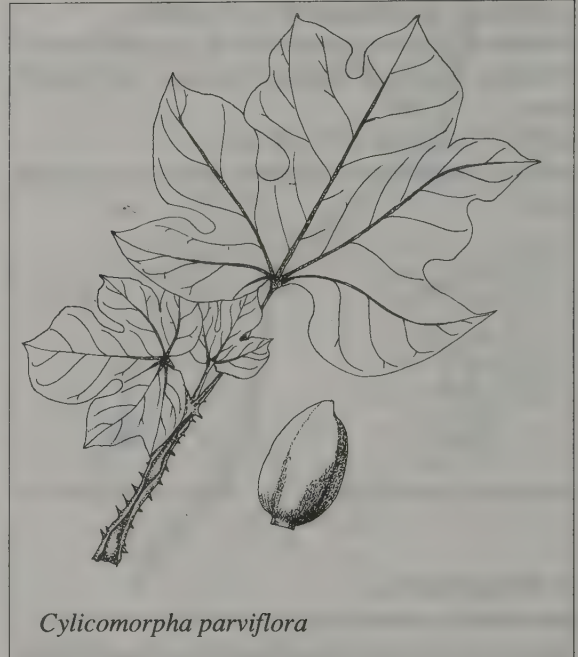
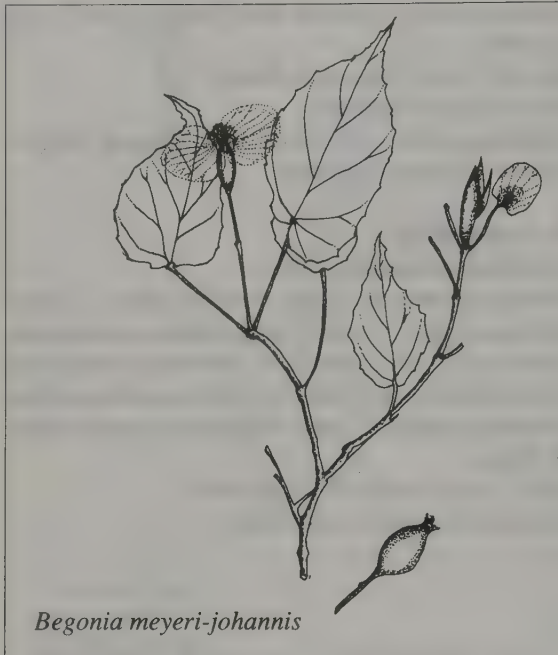
Acacia-Commiphora bushland.



Zehneria anomala



Zehneria anomala



104. BEGONIACEAE

Leaves alternate; stipules large. Inflorescence cymose. Ovary inferior; stamens many. Fruit a capsule.

1. BEGONIA

Begonia meyeri-johannis Engl.

Climber 3-14m, climbing with aerial roots; young stems red. Leaves asymmetrically ovate, base very unequally cordate, apex acuminate, margins dentate-sinuate, 4-10 by 2-7cm, glabrous. Flowers white or pink, dioecious, in elongated cymes; petals 10-22mm long. Fruit ellipsoid, with remnants of styles on top, 12-25 by 5-10mm, warty.

K45; 1850-2450m; I, VI, VIII-XII *

Moist (*Ocotea*) forest margins: Mt Kenya, S Nyan-darua/Aberdares and SW Mau.

106. CARICACEAE

The papaya family. Milky sap in stems. Leaves alternate, without stipules. Flowers dioecious. Male flowers with corolla tube; female with free lobes. Fruit a fleshy berry.

1. CYLICOMORPHA

Cylicomorpha parviflora Urb.

Tree, 12-24m; trunk with very few branches, hollow;

branches and upper trunk densely set with spines to 5mm. Leaves with long petiole, 3-5(-7) lobed, base cordate, apices acuminate, 13-25 by 13-35cm, glabrous. Flowers cream or white, the males in panicles, the females in short racemes; petals 12-30mm long. Fruit yellow, like a small papaya, to 8cm long.

K4; 1350-1770m; XI *

4 Kenyan collections, from the Nyambeni Hills, around Meru, and Kiangombe, in moist forests.

Mtonto (MER).

114. OCHNACEAE

Shrubs or trees with simple, alternate leaves with crenulate to dentate margins. Stipules caducous. Flowers 5-merous. Sepals free, persistent and enlarged in fruit. Petals quickly deciduous. Fruit consisting of separate black drupelets on a fleshy, enlarged receptacle; drupelets elliptic-cylindrical.

- | | |
|---|-------------------------|
| 1. Flowers white | 1. <i>Brackenridgea</i> |
| * Flowers yellow | 2 |
| 2. Stamens numerous, in 3 whorls; inflorescence very short, with long flower stalks | 2. <i>Ochna</i> |
| * Stamens 10, in whorls; inflorescence long, with short flower stalks | 3. <i>Ouratea</i> |



1. BRACKENRIDGEA

Brackenridgea zanguebarica Oliv.

Shrub or tree 1-12m, deciduous; bark rough, dark grey to black, with yellow underbark. Leaves elliptic or narrowly obovate, base cuneate, apex rounded or obtuse, margin minutely serrulate, 4-9 by 1-2.8cm, glabrous. Flowers precocious, in 4-6-flowered lateral clusters; petals white to pink, quickly deciduous. Fruit with enlarged (to 8 x 3.5mm) yellow sepals, drupelets red to black, 6-8 by 6-7.5mm.

K7; 1-450m; XI-XII*

(Coastal) bushland and wooded grassland: S of Mombasa, and Rabai.

Msonga Mahana (SWA & DIG).

2. OCHNA

Shrubs and trees, completely glabrous. Flower stalk articulated near the base, lengthening in fruit. Petals yellow, obovate; stamens 14 to many in 3 whorls, filaments persistent. Drupelets black; fruiting sepals red. (Precocious flowers; see note 2).

1. Leaves with spinulose margin, spinules (esp. near leafbase) > 2mm long 2
- * Leaves with toothed margin, teeth < 1mm long 4
2. Leafbase cuneate 3

- * Leafbase rounded to auriculate 8. *O. thomasiana*
- 3. Leaves elliptic, 4-8.5 by 1.3-3cm. Spinules more dense near leafbase 2. *O. holtzii*
- * Leaves obovate, 8-15.5 by 3.5-5cm. Spinules evenly distributed. 5. *O. kirkii*
- 4. Anthers opening by slits; leaves 3-4x as long as wide 1. *O. holstii*
- * Anthers opening by apical pores; leaves less than 2.5(3)x as long as wide 5
- 5. Flowers in bunched panicles, many per inflorescence 6. *O. mossambicensis*
- * Flowers in unbranched racemes, 1-5 per inflorescence 6
- 6. Leaves 5-12 by 2-5cm; sepals in flower 10-14mm long 4. *O. insculpta*
- * Leaves 3-6.5 by 1-3cm. Sepals in flowers less than 9mm long 7
- 7. Inland species at altitudes of 550-2100m 7. *O. ovata*
- * Seaside species at sealevel 9. *O. sp.A*

Note 1: *Ochna keniensis* Sleumer is described in KTS as a tree to 21m of Mt. Kenya forests, with anthers dehiscing by slits. The species seems close to *O. holstii* but I have seen no specimens, unless Birch 61/67 & 61/72 from K3, Lembus forest, are this species.

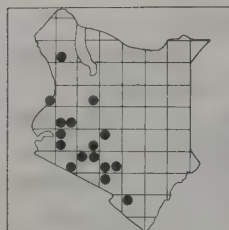
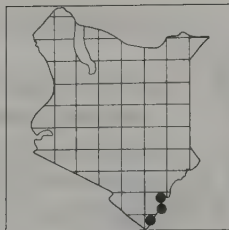
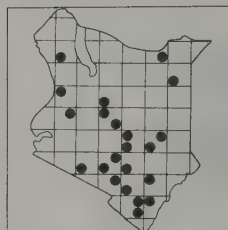
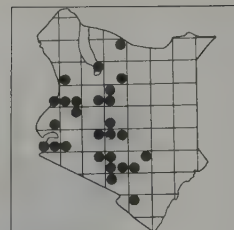
Note 2: species 3,4,5, and 7 may have flowers when they are leafless. They can be identified as follows:

- a. Flowers solitary 3. *O. inermis*
- * Flowers in inflorescences b
- b. Flowers 5-12 per branched panicle, coastal species 5. *O. kirkii*
- * Flowers 1-5 per unbranched raceme, inland species c
- c. Petals 8-15mm long, pedicels 11-15mm 7. *O. ovata*
- * Petals (14-)17-26mm long, pedicels (13)17-35mm 4. *O. insculpta*

1. *Ochna holstii* Engl.

(*O. prunifolia* Engl.)

Tree, 4.5-24m, deciduous; bark smooth, lenticellate, grey. Leaves mostly on short twigs, narrowly elliptic to slightly obovate, base cuneate, apex acute, margin with small teeth, 5-12 by 1.5-3.5cm, glabrous. Flowers yellow, 4-10 per raceme; petals 8-12mm long.

*Ochna holstii**Ochna holtzii**Ochna inermis**Ochna insculpta*

Fruit with black drupelets to 12 by 6mm; red sepals to 17 by 8mm.

K1234567; 1750-2300m; I-V, XI-XII *

Dry forest (remnants) and mist forest.

Mutandi (KAM), Mungirima (KIK), Mundugiti (KIP), Lagatanet (KIP, NDO), Ndorobo (TUG), Logotomwa (MAR), Lojotono (SEB), Ekali (TUR), Orcharduyani-oibor (MAA). Wood hard and tough.

2. *Ochna holtzii* Gilg.

Shrub 2-6m, evergreen. Leaves elliptic, base cuneate, apex acute, margin long-spinulose especially at base, 4-8.5 by 1.3-3cm, glabrous. Flowers yellow, 1-4 per raceme; petals ?20mm long (1 fl. seen). Fruit with black drupelets and red sepals to 13 x 6mm.

K7; 1-500m; XI *

Forest or woodland.

Mtamboo-Mwitu, Mulamvi (SWA, GIR), Mdahabu (GIR).

3. *Ochna inermis* (Forssk.) Schweinf.

Shrub 1-4m, bark rough (?), grey to reddish. Leaves mostly on short twigs, broadly elliptic to obovate, base rounded or cuneate, apex obtuse or rounded, margins with tiny teeth, 1.5-4 by 0.8-2.8cm, glabrous. Flowers yellow, precocious, solitary; petals 8-12mm long. Fruit with black drupelets to 13 x 8mm and red sepals to 13 x 6mm.

K123467; 1-1450m; II, IV, VI, VIII-XII *

Bushland, often on rocky slopes.

Barich (BOR), Mulati, Mutandi (KAM), Mejaba (SOM), Emusth (TUR).

4. *Ochna insculpta* Sleumer

Shrub or tree, 2-9(20)m, bark light brown. Leaves reddish when young, slightly ovate, elliptic or obovate, base cuneate or rounded (subcordate), apex acute, obtuse or emarginate, dmargin with tiny teeth, 5-12.5(-9.5) by 2-5(-8)cm, glabrous. Flowers yellow,

precocious, 1-4(5) per raceme; petals (14-) 17-26mm long. Fruit with black drupelets to 10 x 8mm, and red sepals to 24 by 12mm.

K1234567; (850)1500-2450m; I-III, V-XII.

Dry forest, less common in wet or riverine forest.

Jejaff (BOR), Mutebi, Mutandi (KAM), Mungarima (KIK), Lagatet (NAN), Kerekerekeyong (PKT), Modonkorit (SAM).

5. *Ochna kirkii* Oliv.

Shrub to 3m, many-branched. Leaves rather narrowly obovate, base cuneate, apex obtuse or acute and spinulose, spinulose at the margin, 8-15.5 by 3.5-5cm, glabrous. Flowers yellow, 5-12 per panicle; petals 18-22mm long. Fruit drupelets black, to 8 x 5mm, with red sepals to 15 x 8mm.

K7; 1-350m; XII *

Dry forest (margins): Witu and Shimba Hills.

6. *Ochna mossambicensis* Klotzsch

Shrub or tree, 0.2-4.5m, bark finely longitudinally fissured and variously coloured. Leaves obovate or elliptic, base cuneate, apex acute or rounded, margins with tiny teeth, occasionally with small spinules, 7-14 by 3-6.5cm, glabrous. Flowers yellow, many in branched panicles; petals 12-18mm long. Fruit with black drupelets to 9 x 7mm and red sepals to 14 x 6mm.

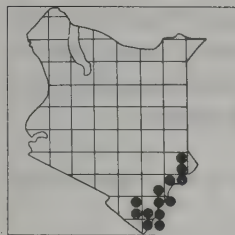
K17; 1-800m; I-III, V-XII.

Bushland, woodland or forest.

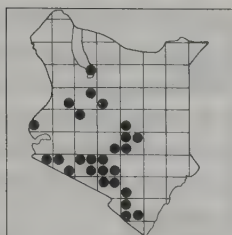
Mkandaa-Mwity, Mnyamvi (SWA), Mdahabu, Mkata Mti (GIR), Mukishati (SAN), Muchu (DIG), Ngidi (TAI). A root decoction is used against stomachache.

7. *Ochna ovata* F. Hoffm.

Shrub or tree, 0.9-6(15)m, much branched, bark grey-brown. Leaves mostly on short shoots, reddish when young, ovate, elliptic or slightly obovate, base (cuneate) rounded or slightly subcordate, apex obtuse or acute, margins with small teeth and often spinulose, 3-6 by



Ochna mossambicensis



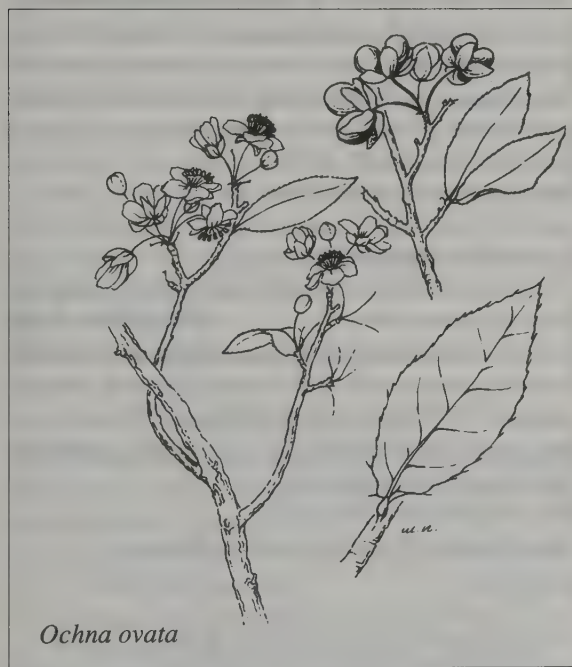
Ochna ovata

1.5-3cm, glabrous. Flowers yellow, more or less precocious, scented, 1-5 per raceme; petals 8-15mm long. Fruit with (purple-) black drupelets to 11 x 6mm and red sepals to 19 x 6mm.

K134(?)67; 550-2100m; I-III, VIII-XII.

Dry forest, bushland, often on rocky sites, occasionally in woodland.

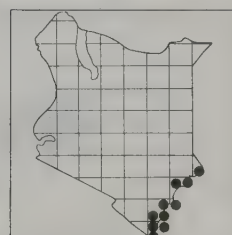
Kitandi, Mutandi (KAM), Mungarima, Mukarara (KIK), Piribayat, Kipiripait (KIP), Ong'ang-Luanda (LUO), Mugimbi, Mukarakara, Mulimutuni (MER), Logatanet (NDO, TUG), Korkorkoyom (PKT), Lalamoroi (SAM). The wood is used in building, and for making axe handles and walking sticks.



Ochna ovata

8. *Ochna thomasiana* Engl. & Gilg

Shrub or tree 1-6m, bark dark brown, lenticellate. Leaves (ovate) elliptic or obovate, base rounded or



Ochna thomasiana

auriculate, apex acute and more or less spinulose, long-spinulose at the margin and especially so near the base, 5.5-10 by 2-4cm, glabrous. Flowers yellow, 1-8 per raceme; petals 15-22mm long. Fruit with black drupelets to 8 x 6mm and red sepals to 16 x 6mm.

K7; 1-500m; II-IV, VI, VIII-VII.

Evergreen coastal bushland, forest and woodland.

Mkanda-Mwitu, Mkilimo (SWA), Mutsongamahana (DIG), Mdahabu, Madahabu (GIR).

9. *Ochna* sp. "A"

RARE

Shrub 2-3m. Leaves obovate, base (cuneate or) rounded or subcordate, apex obtuse, serrulate at the margin, 3-6.5 by 1-3cm, glabrous. Flowers yellow, precocious, 3-7 per raceme, petals not seen (known in bud only). Fruit: only immature fruits known, with red sepals to 10 x 4mm.

K7; 1-50m; IV *

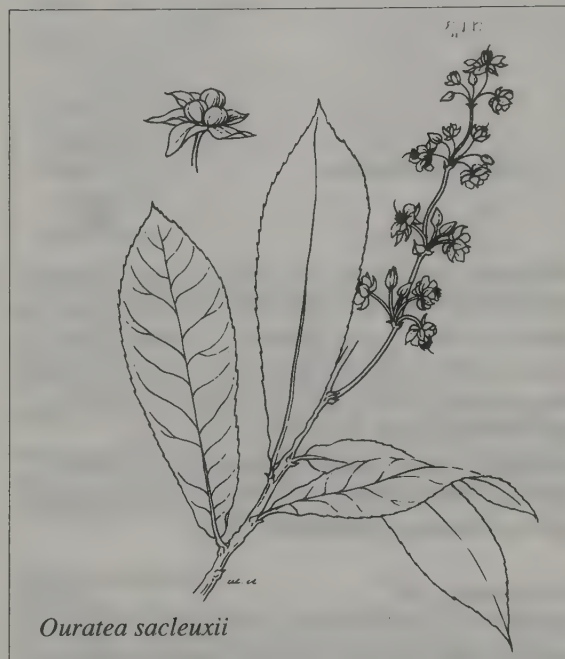
Thickets on dunes just above highwater mark.

NOTE: 4 specimens are present in the E.A. Herbarium, all collected from a small area around Kiunga (Gilbert & Kuchar 5874; Kuchar 13719; MacNaughton 2567; Oxtoby EA 15356). This species is close to *O. ovata*, although it seems to have generally more flowers per raceme and longer pedicels; also the habitat is entirely different from that of *O. ovata*. It could be a subspecies of *O. ovata*.

3. OURATEA (*Campylospermum*)

Shrubs or small trees; leaves serrulate or dentate at the margin; flowers many, in clusters on long terminal or axillary branched panicles or unbranched racemes.

1. Inflorescences unbranched 2
- * Inflorescences with branches 3
2. Leaves 19-34cm long; inflorescence > 18cm long 4. *Ouratea sacleuxii*
- * Leaves less than 15cm long; inflorescence < 9cm long 5. *Ouratea schusteri*
3. Coastal species; leaf margin teeth ≈ remote (interval > 3mm) 3. *Ouratea reticulata*

*Ouratea sacleuxii*

- * Kakamega area; leaf margin teeth close (interval 3mm or less)

4. Branchlets purple-brown; leaves leathery

1. *Ouratea densiflora*

- * Branchlets yellow-brown; leaves papery

2. *Ouratea hiernii*

1. *Ouratea densiflora* De Wild & Th. Dur.

[*Campylospermum densiflorum* (De Wild. & Th. Dur.) Farron].

Shrub or tree 1-12m, bark dark grey, smooth but for raised horizontal lenticells. Leaves elliptic to slightly obovate, apex cuneate or rounded, margins with tiny teeth, 12-32 by 5-12cm, glabrous. Flowers yellow, in a panicle inflorescence to 10-15cm long; petals 9-10mm long. Fruit drupelets black, to 9 x 6mm, with red sepals to 10mm long.

K5; about 1600m; *

Collected once in Kakamega forest.

2. *Ouratea hiernii* (van Tiegh.) Exell

[*O. bukobensis* Gilg, *Campylospermum bukobense* (Gilg) Farron]

Shrub or tree, 2-6(-12)m, bark brown. Leaves narrowly elliptic to narrowly obovate, base cuneate or attenuate, apex acute or obtuse, margins with tiny

teeth, 10-23 by 3.5-6.7cm, glabrous. Flowers yellow, in a panicle inflorescence with 1-4 branches, 5-10cm long; petals 7-11mm long. Fruit drupelets black, to 8 x 6mm, with red sepals to 9mm long.

K5; about 1500m; IV *

In swamp forest, collected once on the Yala R. near Kakamega.

3. *Ouratea reticulata* (P. Beauv.) Engl.

Shrub 2.4-3m. Leaves narrowly elliptic to narrowly obovate, base cuneate, apex acute, margins with small teeth far apart, 9-29 by 2-6cm, glabrous. Flowers yellow, in a panicle inflorescence with 3-5 branches, 10-17cm long; petals about 8mm long. Fruit drupelets black, to 9 x 6.5mm, with red sepals to 8mm long.

K7; 350-450m; II, IV *

Collected twice in Shimba Hills forest.

4. *Ouratea sacleuxii* (van Tiegh.) Beentje

(*Ouratea* sp. of TTCL; *Cercantherum sacleuxii* van Tiegh.)

RARE

Shrub or tree 1-5(?)10m. Leaves elliptic to slightly obovate, base rounded or auriculate, apex obtuse or acute, margin with teeth far apart, 19-34 by 4.5-9cm, glabrous. Flowers yellow, on an unbranched spike 20-35cm long; petals 7-9mm long. Fruit drupelets black, to 6 x 6mm, with red sepals to 9mm long.

K7; 300-450m; II, IV, XII *

Moist forest in Shimba Hills area.

5. *Ouratea schusteri* Engler

(*O. sp. nov.* of KTS; often confused with *O. scheffleri* from Usambara Mts.)

VULNERABLE

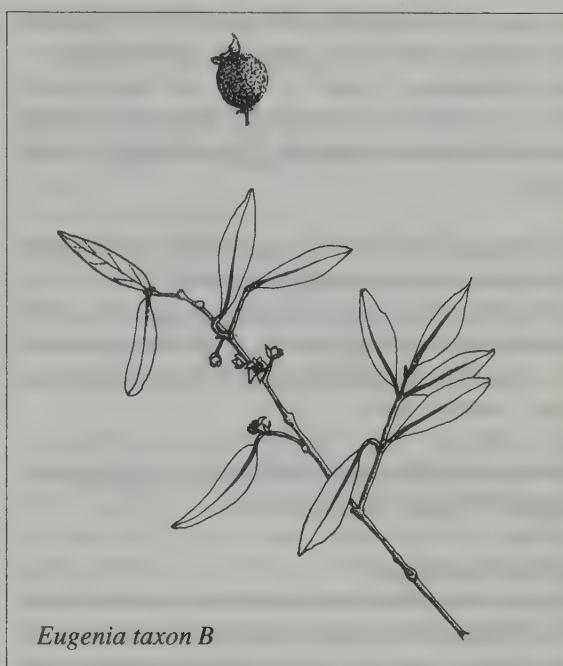
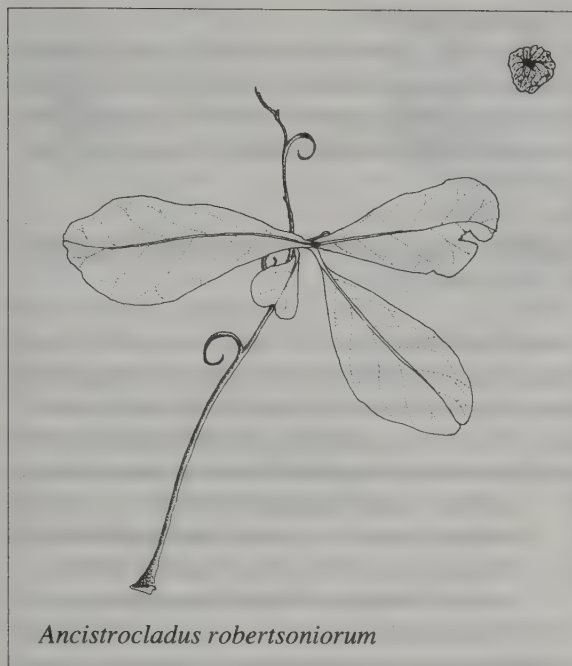
Tree, 5-12m; bark dark grey. Leaves elliptic to slightly obovate, base cuneate, apex rounded to obtuse, margin toothed, 7.5-15 by 3-7.5cm, glabrous. Flowers yellow, on an unbranched spike 2-10cm long; petals 6-9mm long. Fruit not known.

K7; 1450-1850m.; IX, XII *

Moist forest in Taita Hills and on Kasigau.

115. ANCISTROCLADACEAE

Lianes, each branch ending in a coiled hook. Leaves alternate, simple and entire, stipulate (but stipules caducous). Flowers small, in dichotomous cymes. Ovary semi-inferior. Fruit one-seeded, surrounded by enlarged persistent calyx-lobes.



1. ANCISTROCLADUS

Ancistrocladus robertsoniorum J. Léonard

VULNERABLE

Liana to 30m; branches with many climbing hooks. Leaves subsessile, narrowly obovate or elliptic, base attenuate, apex obtuse or shortly acuminate, 6.5-50 by 2-10cm, glabrous. Flowers yellow, about 7mm long, in axillary cymes to 11cm long. Fruit brown, obconical, 5-8mm long; expanded sepals narrowly obovate, wing-like, 3-5 by 0.6-1.5cm.

K7; 1-300m; VIII *

Endemic: Mwele, Gongoni, Buda forest.

118. MYRTACEAE

Leaves opposite, gland-dotted (seen when held against the light); stipules absent. Sepals and petals 4-5; stamens many; ovary inferior.

1. Flowers axillary, in bunches (fascicles); petals free, (sub)persistent

1. *Eugenia*

- * Flowers in terminal cymes (except in *S.*

cumini); petals soon caducous, falling as a

unit

2. *Syzygium*

1. EUGENIA

Flowers axillary, either solitary or in fascicles. Fruit a berry with 1-3 seeds. Until more is known about these

taxa, I am unable to make a key. The species or taxa are, however, geographically separate.

1. *Eugenia capensis* (Eckl. & Zeyh.) Sond. ssp. *nyassensis* (Engl.) F. White

(*E. bukobensis* Engl.)

Shrub or small tree 1-5m. Leaves elliptic, base cuneate, apex obtuse or bluntly and shortly acuminate, 2-7 by 1.3-4cm, glabrous. Flowers white, in bunches of 3-9; petals 4-5mm long. Fruit purpleblack, round or ellipsoid, 12-16mm long.

K5; collected once near Mundere in Siaya, 1140m * (Trapnell 2295)

Thicket, near lake.

2. *Eugenia taxon A* (Lawton 1799)

A single specimen, in fruit, from Nzaui (K4, about 1800m). Shrub in *Newtonia* forest remnant. Leaves elliptic, base cuneate, apex bluntly and shortly acuminate, 2.5-4.8 by 1.3-2.7cm, glabrous. Fruit in bunches of 2-3; round, 9-12mm. (possibly = Luke 393, Chogoria)

3. *Eugenia taxon B* (probably a new species)

Shrub 1.2-4m. Leaves narrowly elliptic, base cuneate, apex obtuse or acute, 3-6 by 0.7-1.6cm, glabrous.

Flowers white or pinkish, in bunches of 1-3; petals 3-4.5mm long. Fruit dark purple, round, 9-11mm.

K4; 800-1000m; VII, IX *

Rocky floodbed of river; known only from Tana R. near Kindaruma (Bradshaw 22-25, Gillett 19276, 19821).

4. *Eugenia taxon C* (*E. sp. near malangensis* (O.Hoffm.) Niede) possibly = taxon F

Shrub, 2m. Leaves narrowly elliptic, base cuneate or obtuse, apex obtuse, 2-4 by 0.7-1.3cm, glabrous. Flowers white, in branches of 2-3; petals about 2mm long. Fruit not seen.

K7; 1-100; IX *

Riverbed, between large rocks (Drummond & Hemsley 4260) at Mwachi, and Kaya Rabai.

5. *Eugenia taxon D*

A group of sterile shrubs/trees 4-6m. Leaves elliptic, base cuneate, apex obtusely and shortly acuminate, 5-9 by 3-6cm, glabrous. Buds in axillary groups of 3-6. K7; about 350m; - *

Forest near Kwale (Spjut 4566, Saufferer 866, Ossent EA 13602.)

6. *Eugenia taxon E*

Shrub 3-4m. Leaves broadly ovate to almost round, base cordate, apex obtuse. Flowers white, long-stalked, in pairs or solitary; petals 2-2.5mm long. Fruit not seen.

K7; 20-350m; IX *

Drummond & Hemsley 4143 (Taru, thicket in rocky gully) and Gillett & Kibuwa 19925 (forest near Tana at Wema).

7. *Eugenia taxon F*

[poss. = *E. capensis* ssp. *aschersoniana* (F. Hoffm.) F. White]

Shrub or tree 2.4-6m. Leaves elliptic, base cuneate, apex obtuse, 3.5-7 by 1.5-4.2cm; petiole 2-4mm. Flowers white, in bunches of 2-6; petals 3.5-4.5mm long, stigma capitate. Fruit purpleblack, round, 8-9mm.

K7; 1-500m; III-IV *

Coastal thicket or forest (transition *Afzelia-Brachystegia*): Watamu and Arabuko-Sokoke (e.g. Mrs. Simpson 17 & 27, Graham 2314), also Mangea.

8. *Eugenia taxon G*

Shrub 2-3.5m. Leaves ovate or elliptic, base rounded to subcordate, apex obtuse, 4-10 by 1.5-5cm, slightly hairy (more dense on midrib). Flowers pinkish white, in many-flowered fascicles; petals 5-6mm long. Fruit unknown.

K4; 1250-1500m; IV *

Riparian forest at Thika and Fourteen Falls (Faden 68/60, 68/10, 68/735).

2. SYZYGIUM

Inflorescence terminal, a many-flowered cyme. Calyx irregularly lobed; petals 4, quickly caducous as a small cap. Fruit a one-seeded berry. A difficult genus, due to hybridization and apomixis (a-sexual propagation).

1. Leafbase cuneate; petiole 5-22mm 2

* Leafbase rounded or cordate; petiole 0-5mm 3

2. Inflorescence axillary, from the axils of fallen leaves; filaments 5-6mm. Planted and naturalized 2. *S. cumini*

* Inflorescence terminal (rarely axillary to present leaves); filaments 3-9mm.

3. *S. guineense*

3. Leafbase cordate and auriculate; petiole 0-2mm; filaments 10-15mm 1. *S. cordatum*

* Leafbase rounded; petiole 2-5mm; filaments 6-8mm 4. *S. sclerophyllum*

NOTE: Hybrids occur between *S. guineense* and *S. cordatum*: petiole 2-6mm, leafbase rounded or subcordate. Possible Kenyan representatives: Carroll T1 (Kakamega), McDonal 14 (Mara), Milgroom 1 & 16 (Amboseli) and various specimens from Mt. Nyiru and the Mathews (Kerfoot 1944, Ichikawa 546 & 786).

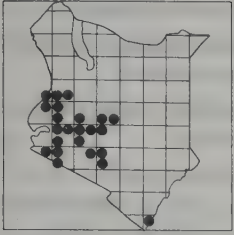
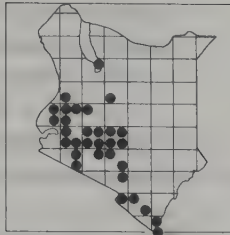
1. *Syzygium cordatum* Krauss

Tree 3-20m, evergreen; bark dark brown, rough, flaky. Young stems squarish. Leaves elliptic, base cordate and amplexicaul, apex rounded or obtuse, 4-13 by 2-7cm, glabrous. Flowers white (stamens), in many-flowered corymbs; filaments 10-15mm long. Fruit purpleblack, ellipsoid with a permanent calyx on top, 10-18mm long.

K234567; (300)1050-2400m; I-IX, XII (I)

Riverine.

Muziahi (DIG), Kivueni (KAM), Muriru, Mukui (KIK), Sumoiyot, Lemuguyet (KIP), Lemejwet (LUM), Mukutan-Achak (LUO), Ol-Olobironi (MAA), Re-

*Syzygium cordatum**Syzygium guineense*

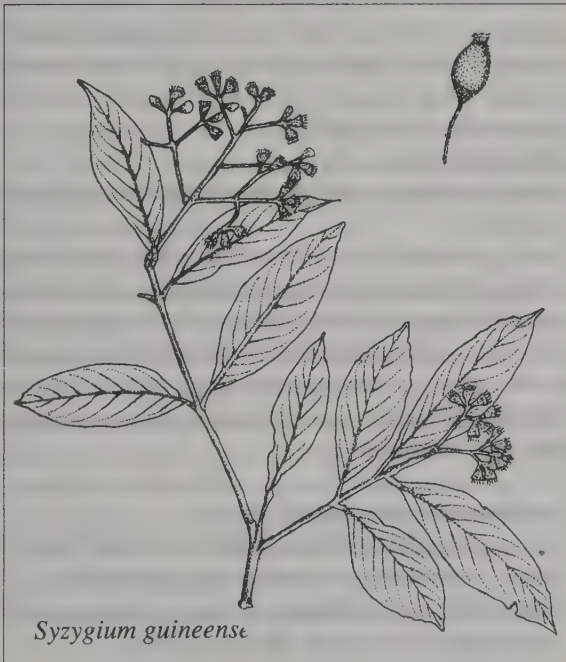
berwa (MAR), Ngilenyai (SAM), Lemeyuet (SEB). Fruit edible; wood used for building; bark infusion used against stomachache by the Pokot.

2. *Syzygium cumini* (L.) Skeels

An exotic tree cultivated for its fruits. Naturalised on the coast, at Wundanyi and Muhoroni. Msambarau (SWA).

3. *Syzygium guineense* (Willd.) DC.

Tree 4-18m, evergreen; bark grey or brown, flaking in patches. Young stems often squarish. Leaves elliptic, base cuneate (less often rounded), apex obtuse to acuminate, 4-14 by 2-6cm, glabrous. Flowers (filaments) white, in subcorymbose cymes; filaments 3-9mm long. Fruit purpleblack, round or ellipsoid, 12-35 by 10-25mm.

*Syzygium guineense*

K1234567; 1-2550m; I-VII, IX, XI-XII (I)

—ssp. *guineense* : leaf apex obtuse or coarsely and bluntly acuminate.

Riverine or in wooded grassland (1-2100m).

—ssp. *afromontanum* F. White : leaf apex slenderly acuminate.

Forest (1500-2550m).

Mshiwi (STAND), Mzuari (SWA), Muziahi, Mkulu (DIG), Mukui (KIK), Lemechwet (KIP), Kumusemwa (LUH), Ol-Eragai (MAA), Lemaigua (MAR, TUG, SEB), Muiru (MER), Lamaiywet (NAN), Lairakai, Lamulii (SAM). Timber red, hard and strong.

4. *Syzygium sclerophyllum* Brenan

Tree (1.5) 7-30m; bark dark brown, flaking; young stems squarish. Leaves broadly elliptic, base rounded (or nearly so), apex a short blunt acuminate, margins slightly inrolled, 3.5-9 by 2.5-8cm, glabrous. Flowers white, in subcorymbose cymes; petals quickly caducous, filaments 6-8mm long. Fruit purpleblack, round, 16mm.

K7; 1350-1900m; I-XII *

Mist forest in Taita Hills and Ngulia.

Mkungu (TAI). The wood is used to make mortars.

Note : on the Maungu Hills and in the Shimba Hills specimens have been collected (Faden 70/179, Magogo & Glover 104 & 28, Moomaw 967, Magogo & Estes 1238, Mahasi EA 14885, Brenan et al. 14559) which resemble *S. sclerophyllum* (thick leaves, often with rolled edges, leafbase rounded, filaments 6-7mm) except for the shape of the leaf, which is more elliptic than *S. sclerophyllum*. I believe them to be hybrids, presumably *S. sclerophyllum* x *guineense*.

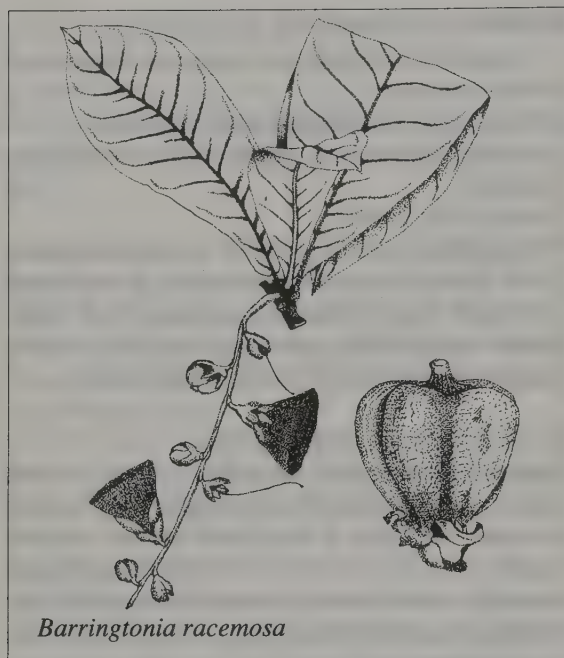
119. LECYTHIDACEAE

1. BARRINGTONIA

Leaves alternate; stipules minute, caducous. Flowers in racemes. Ovary inferior; calyx splitting at anthesis into 3-4 lobes. Petals 4. Stamens many.

Barringtonia racemosa (L.) Spreng.

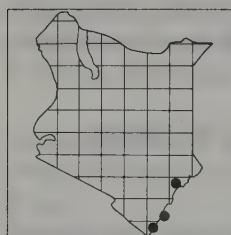
Tree 3-12m. Leaves slightly obovate, base tapering (sometimes obtuse at very base), apex acuminate, 15-36 by 6-14cm, glabrous, margins obscurely crenulate. Flowers white, in long pendulous racemes to 1m long; petals 12-30mm long. Fruit ellipsoid, 3-7 by 2-4cm.



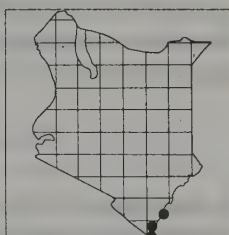
K7; 100-350m; IV, VI, VIII, XI-XII *
(Riverine) forest

Mtomondo (SWA), Moyongondo, Mworogondo (DIG), Muhoro-Ng'ondo (GIR). Bark with high tannin content; bark used as a fish poison.

Barringtonia asiatica (L.) Kurz is a tree with erect flower racemes. A well-known drift seed tree; several trees growing on the beach at Diani.



Barringtonia racemosa



Memecylon amaniense

120. MELASTOMATACEAE

1. MEMECYLON

Leaves opposite. Inflorescence a corymbose panicle, often reduced. Flower parts in 4; stamens 8. Fruit a berry, often with the persistent calyx-lobes on top.

1. Leaves clearly 3-veined from the base 2
- * Leaves with only faint veins, but clear midrib 4
2. Leafbase cuneate (Arabuko-Sokoke) 5. *M. sansibarense*
- * Leafbase rounded to subcordate 3
3. Flowers more or less sessile; fruit red 1. *M. amaniense*
- * Flowers in stalked clusters; fruit blue (Arabuko-Sokoke and Buda) 4. *M. mouririifolium*
4. Coastal species (below 500m) 5
- * Inland species (above 1000m) 6
5. Inflorescence several-flowered; fruit ellipsoid; leaves thick 3. *M. fragrans*
- * Flowers solitary or in pairs; fruit round; leaves papery 7. *M. verruculosum*
6. Mutha Hill; leafbase cuneate; peduncle 2-4mm 2. *M. buxoides*
- * Taita Hills; leafbase rounded or subcordate; peduncle 10-15mm 6. *M. teitense*

Note. *Memecylon schliebenii* Markgr. has recently been found at Gongoni Forest, confirming the tentative FTEA record from Arabuko-Sokoke.

1. *Memecylon amaniense* (Gilg) A. & R. Fernandes (*Warneckea amaniensis* Gilg)

Shrub 1-2m, evergreen. Leaves ovate, base subcordate to amplexicaul, apex acuminate, 3-24 by 2-20cm, glabrous. Flowers white or pink, in small sessile axillary clusters; petals 3-4mm long. Fruit red, round, 4-7mm.

K7; 1-450m; V, IX-XI*

Evergreen forest.

A root decoction is used against bronchial trouble by the Digo.

Note : Material from Kenya falls into two distinct groups. Typical *amaniense* has large leaves, slightly winged twigs, and flowers/fruits with bristles at the base; the second group (*var. A*) has smaller leaves (up to 10 x 6cm), no wings on the twigs, and no bristles. The typical variety seems to occur at higher altitudes, *var. A* at lower ones.

2. *Memecylon buxoides* Wickens

(*M. sp. nov.* of KTS) ENDANGERED, ?EXTINCT
Shrub? Leaves elliptic, base cuneate, apex obtuse, 1.3-2.7 by 0.5-1.6cm, glabrous. Flowers white, in short cymes; petals 2mm long. Fruit unknown.

K4; 1200m; I-II *

Endemic to Mutha forest. Last collected in 1942.

3. *Memecylon fragrans* A. & R. Fernandes

VULNERABLE

Shrub 1-3m. Leaves ovate, base cuneate to rounded, apex bluntly acuminate, 2-5.5 by 1-2.4cm, glabrous. Flowers white, in short axillary and terminal cymes; petals 2-2.5mm long. Fruit black, ellipsoid, 8-9 by 6-7mm.

K7; 1-400m; V-VI, XI *

Dry evergreen forest: Arabuko-Sokoke area and extreme S Coast.

Mlambuzi (SWA), Hawe Narega (GIR).

4. *Memecylon mouririifolium* Brenan

Shrub or tree 2-6m. Leaves ovate, base rounded or subcordate, apex bluntly acuminate, 2-7 by 0.6-4cm, glabrous. Flowers white, in stalked axillary clusters; petals 1.7-2.5mm long. Fruit blue, ellipsoid, 6-8 by 5-6mm.

K7; 1-400m; III, VII-IX, XI *

Dry evergreen forest and *Brachystegia* woodland (Arabuko-Sokoke, Mangea and Buda).

Mkata-Kimo (SWA), Mukurcha (SAN). Poles used for fito.

5. *Memecylon sansibaricum* Taub.

var. *sansibaricum*

(*M. melindense* A. & R. Fernandes)

Shrub or tree 4.5-11m; bark smooth, grey. Leaves ovate or elliptic, base cuneate, apex bluntly acuminate, 3-8.5 by 1.5-5cm, glabrous. Flowers white, turning blue, in axillary bunches; petals 1.5-3mm long. Fruit blue, round, 5-8mm.

K7; 1-400m; III, X *

Dry evergreen forest or wooded grassland (Arabuko-Sokoke and several sites in Kwale District).

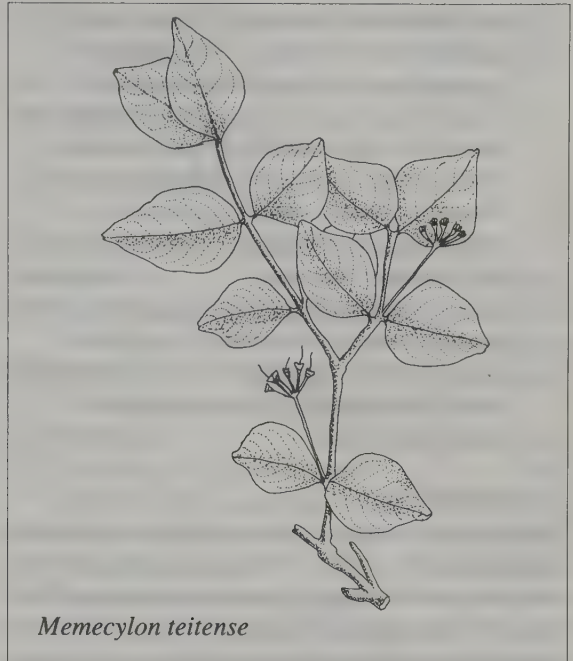
Mpera-Mwitu (SWA), Mchai (GIR).

6. *Memecylon teitense* Wickens VULNERABLE

Shrub or tree 5-22m. Leaves broadly ovate, base rounded to subcordate, apex bluntly acuminate, 1.5-3.5 by 1-3cm, glabrous. Flowers white, in stalked umbels; petals 1.5-2mm long. Fruit unknown.

K7; 1450-1850m; I, XII *

Endemic to Ngangao and Mbololo forest, Taita hills.



Memecylon teitense

7. *Memecylon verruculosum* Brenan

Shrub 1-3(?)5m. Leaves ovate, base cuneate or rounded, apex acuminate, 2-4 by 0.8-2.5cm, glabrous. Flowers white, solitary (in pairs), axillary; petals 2.5-3.5mm long. Fruit red-black, round, 4-6mm.

K7; 200-450m; VIII-IX *

Evergreen forest (Shimba Hills).

Mkata-Kimo (SWA).

121. COMBRETACEAE

Leaves exstipulate; often with stalked glands and scales. Flowers bisexual, sometimes also some male flowers present in the same inflorescence; 4-5 merous; in (extra-) axillary spikes or racemes, or terminal & axillary panicles. Receptacle (calyx-tube) in 2 distinct parts. Petals often small. Stamens 8-10. Ovary inferior. Fruit variable.

1. Mangrove; fruit crowned by persistent calyx
 - * Not mangroves 2
2. Leaves opposite or verticillate (occ. alternate in *Combretum aculeatum*, *C. collinum*) 3
 - * Leaves alternate or crowded on short spur shoots 5. *Terminalia*
3. Leaves with scales 1. *Combretum*
 - * Leaves without scales 4

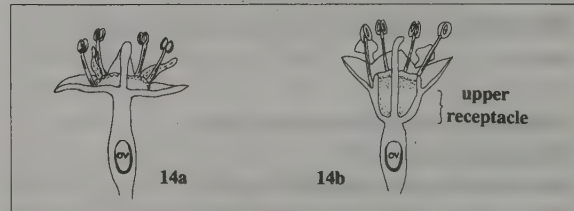
4. Fruit with wings tapering into stalk or rounded (*P. tetraptera*); wings 2-5(8); bisexual and male flowers in same inflorescence
3. Pteleopsis
- * Fruit with wings rounded or lobed at base, or fruits angled; wings 4-5; inflorescence with bisexual flowers only **5**
5. Fruit 4-angled or -winged, or 5-angled; petals 4, less than 3mm long **1. Combretum**
- * Fruit 5-winged; petals 5, more than 4mm long **6**
6. Coastal liana; flowers yellow, in spikes to 14cm; stamens included **4. Quisqualis**
- * Either inland species, or flowers red, or stamens exserted **1. Combretum**

1. COMBRETUM

Trees, shrubs or lianas. Leaves alternate, opposite or verticillate, with scales. Flowers bisexual, 4-5-merous; receptacle with lower part adnate to the ovary, and an upper part, usually expanded. Stamens twice as many as the petals, usually exserted. Fruit 4-5-winged or -angled.

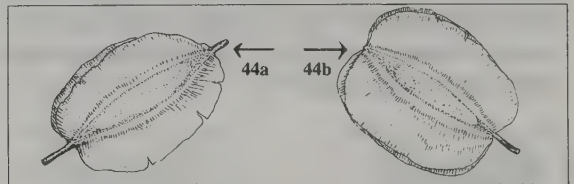
1. Flowers and fruits with the parts in 5's (occ. 4-winged fruits in *C. mossambicensis* and *C. paniculatum*); petioles of fallen leaves often (partly) remaining as a recurved spine **2**
- * Flowers and fruits nearly always 4-merous (rarely 5-6-merous in *C. capituliflorum*, 5-merous in *C. exaltatum*); petioles non-spiny **13**
2. Plant in flower **3**
- * Plant in fruit **9**
3. Flowers red or pink **4**
- * Flowers white or yellow **7**
4. Petals 7-9mm long **5**
- * Petals 1.5-2.5mm long **6**
5. Coastal species at altitudes below 150m
8. C. constrictum
- * Inland species at altitudes above 600m
14. C. mossambicense
6. Petals 2.5mm wide; flowers in branched panicles
16. C. paniculatum
- * Petals 1mm wide; flowers in simple spikes
17. C. pentagonum
7. Leaf base cuneate; petals 4-6mm long
1. C. aculeatum
- * Leaf base rounded or subcordate; petals less than 3, or more than (5)-7mm long **8**

8. Petals 1.5-2.5mm long; coastal species below 100m
17. C. pentagonum
- * Petals (5)7-9mm long; inland species, above 600m
14. C. mossambicense
9. Fruits angled **10**
- * Fruits winged **11**
10. Leaf base rounded; fruit elliptic
8. C. constrictum
- * Leaf base narrow and subcordate; fruit obovate
17. C. pentagonum
11. Leaves smaller than 7 by 5cm; fruit 11-22mm long
1. C. aculeatum
- * Leaves usually larger than 7 by 5cm; fruit 20-42mm long **12**
12. Leaf apex sharply acuminate; petiole to 7mm; fruit stipe 4-6mm
14. C. mossambicense
- * Leaf apex rounded or bluntly acuminate; petiole to 30mm; fruit stipe 5-10mm
16. C. paniculatum
13. Plant in flower **14**
- * Plant in fruit **29**
14. Upper receptacle almost flat **15**
- * Upper receptacle gradually widening **16**



15. Petiole 5mm or less; flowers in spikes or heads less than 3cm long
9. C. contractum
- * Petiole 6mm or more; flowers in spikes to 5cm long
15. C. padoides
16. Petals ciliolate (or absent in *C. molle*) **17**
- * Petals glabrous, rarely with 2-3 hairs **22**
17. Inflorescence (sub)globose **18**
- * Inflorescence elongate **19**
18. Inland species found above 900m
5. C. capituliflorum
- * Coastal species found below 200m
6. C. chionanthoides
19. Stamens in 2 series; altitudes below 200m; leaves glabrous
12. C. illairii
- * Stamens in 1 series; altitude above 300m, or leaves hairy **20**
20. Branches with bark scaling off in large pieces

18. *C. psidioides*
 * Branches with bark peeling in strips or threads 21
21. Leaves usually pubescent; petiole 2-3mm 13. *C. molle*
 * Leaves usually glabrous; petiole to 10mm 3. *C. apiculatum*
22. Flower-bearing part of inflorescence usually less than 3cm long (except *butyrosom*) 23
 * Flower-bearing part usually 5-10cm long 26
23. Petiole longer than 6mm; upper receptacle more than 2mm long 19. *C. schumannii*
 * Petiole shorter than 5mm; upper receptacle about 1.5-2mm long 24
24. Receptacle 4-8mm long; inflorescence stalk to 4cm long (below 100m) 4. *C. butyrosom*
 * Receptacle 3.5-4.5mm long; inflorescence stalk to 2cm long 25
25. Leaf base cuneate or rounded 11. *C. hereroense*
 * Leaf base subcordate 10. *C. exalatum*
26. Coastal species found below 200m 21. *C. tenuipetiolatum*
 * Inland species found above 500m 27
27. Climber, petals about 1mm long 20. *C. tanaense*
 * Shrubs or trees, petals more than 1.5mm long 28
28. (*C. collinum*, *C. adenogonium*, *C. zeyheri*) These species are almost impossible to separate when in flower. If fruits are present:
 7. *C. collinum* fruits are metallic red; leaves alternate, opposite or verticillate
 22. *C. zeyheri* fruits are light brown, 4-8cm long; leaves opposite or verticillate
 2. *C. adenogonium* fruits are yellow-brown, 2.5-3.5cm long; leaves opposite or verticillate.
29. Fruit angled or narrowly winged 30
 * Fruit broadly winged (wider than body) 33
30. Leaf apex rounded; leaves pubescent 10. *C. exalatum*
 * Leaf apex acute or apiculate; leaves glabrous or nearly so 31
31. Inland species found above 900m 5. *C. capituliflorum*
 * Coastal species found below 250m 32
32. Fruits usually tomentose; leaves conspicuously scaly 4. *C. butyrosom*
 * Fruits usually glabrous; leaves with inconspicuous scales 12. *C. illairii*
33. Axils of inflorescence less than 3cm long 34
 * Axils of inflorescence more than (3)4cm long 37
34. Fruit yellowish 35
 * Fruit reddish 36
35. Leaves pubescent; fruit stipe 2-3mm 10. *C. exalatum*
 * Leaves glabrous or nearly so; fruit stipe 10-20mm 19. *C. schumannii*
36. Fruit stipe about 2mm long 9. *C. contractum*
 * Fruit stipe more than (3)4mm long 11. *C. hereroense*
37. Fruit larger than 4 by 3.5cm 38
 * Fruit smaller, usually less than 3.5 by 3cm 39
38. Fruit metallic red or purple 7. *C. collinum*
 * Fruit light brown 22. *C. zeyheri*
39. Mature leaves densely hairy 40
 * Mature leaves glabrous or nearly so 41
40. Fruit metallic; petiole 10-40mm 7. *C. collinum*
 * Fruit non-metallic; petiole 2-3mm 13. *C. molle*
41. Mature leaves smaller than 10 by 3.5cm 42
 * Mature leaves usually much larger than 10 by 5cm 43
42. Fruit non-metallic; stipe 2-3mm 15. *C. padoides*
 * Fruit metallic; stipe about 10mm 21. *C. tenuipetiolatum*
43. Liana; leaf scales immersed in leaf surface 20. *C. tanaense*
 * Tree or shrub; leaf scales not immersed 44
44. Fruit yellow-brown; apical peg to 3mm long 47
 * Fruit reddish or pink; apical peg tiny or absent 45



45. Petiole 10-40mm 7. *C. collinum*
 * Petiole 10mm or less 46
46. Young leaves glabrous; bark of branches peeling in strips 3. *C. apiculatum*
 * Young leaves tomentose; bark of branches scaling in large patches 18. *C. psidioides*

47. Leafbase cuneate or rounded; petiole 1-15mm;
fruit mostly larger than 25 by 25mm

2. *C. adenogonium*

- * Leafbase rounded to subcordate; petiole less than
5mm; fruit mostly smaller than 25 by 25mm

13. *C. molle*

Note. Luke & Robertson 1624 is an unmatched
Combretum species from Mwele Mdogo.

1. *Combretum aculeatum* Vent.

(*C. denhardtiorum* Engl. & Diels)

Shrub 0.5-4m with virgate branches or scandent to 8m;
bark grey or dark red. Recurved spines to 3cm long
formed by persistent, enlarged petioles. Leaves
alternate or subopposite, elliptic or obovate, base
cuneate, apex rounded to shortly acuminate, to 7 by
5cm, more or less pubescent. Flowers white, in short
axillary racemes; petals 4-6 by 1-2mm. Fruit pale
yellow or pale reddish, 5-winged, slightly obovate, 11-
22 by 10-23mm.

K123467; 1-1350(1800)m; I-XII (III-V, IX-XII)

Dry (*Acacia-Commiphora*) bushland; along luggas
and rivers; woodland or bushed grassland.

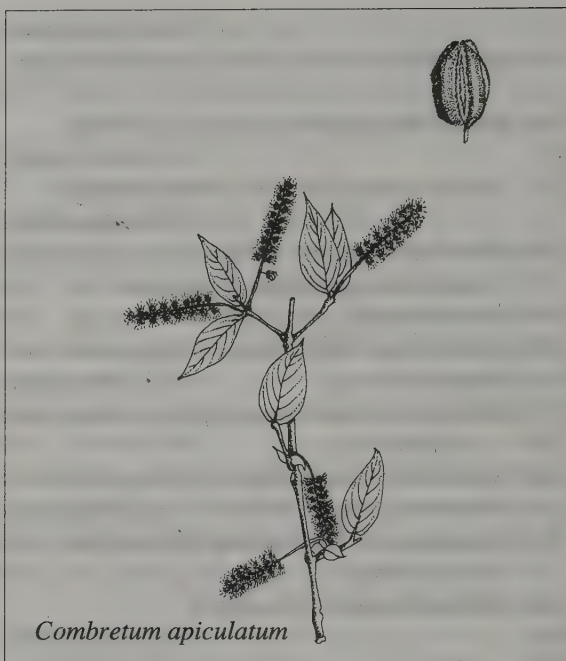
Mlalozi (BAJ), Chachalleh (BOR, REN), Chanchali,
Hikho (GAB), Mutithi (KAM), Darsa (ORM), Rikoyo
(SAM), Eddi Shebai (SOM), Ekabekebeke (TUR).

Twig fibres used in basketry.

2. *Combretum adenogonium* A.Rich.

(*C. fragrans* F. Hoffm., *C. ghasalense* Engl. & Diels)

Small tree 3-12m; bark grey, reticulately fissured;
branches peeling. Leaves opposite or verticillate in 3-
4, ovate or elliptic, base cuneate or rounded, apex
obtuse or acute, 6-21 by 2.5-11cm, almost glabrous,
densely scaly and glutinous beneath. Flowers whitish-
green or cream, in axillary spikes to 7cm (sometimes
branched); petals 2-3 by 1-1.5mm. Fruit (yellow-)
brown, 4-winged, 25-35 by 25-30mm, glabrous, glu-
tinous, and slightly scaly.



K45; 700-1950m; XII *

Wooded or bushed grassland.

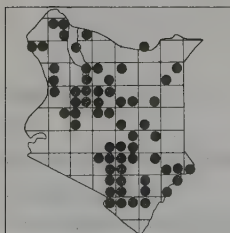
Keyo (LUO), Ekuyet (TUR).

3. *Combretum apiculatum* Sond. ssp. *apiculatum*

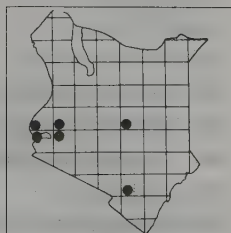
Tree (rarely a shrub) 2.5-10(-13.5)m; bark grey, re-
ticulate. Leaves (sub)opposite, shiny beneath, elliptic
or (ob-)ovate, base obtuse, rounded or subcordate,
apex apiculate or mucronate and usually twisted, 5-14
by 2.5-7cm; mature leaves with hairtufts in nerve-axils
and occasionally hairy on midrib and veins. Flowers
yellow-white, in axillary spikes 3-7cm long; petals
about 1.2mm long and wide. Fruit (metallic) red or
yellow, 4-winged, 20-30 by 15-25mm.

K13467; 250-1750m; III, V, IX-XII *

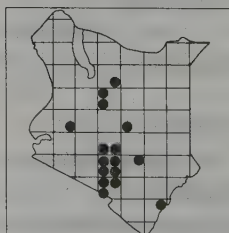
Combretum wooded grassland. Often common or
even dominant.



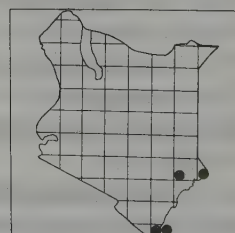
Combretum aculeatum



Combretum adenogonium



Combretum apiculatum



Combretum butyrosium

Chepchoboiret (Elgon), Mutithi, Muuanziki (KAM). Yields excellent charcoal. Considered (in Kerio Valley) to be an indicator of fluorspar deposits.

4. *Combretum butyrosum* (Bertol.f.) Tul.

(Scandent) shrub to 10m. Leaves opposite, elliptic, base subcordate, apex rounded and often apiculate, 3-8(11) by 2-4(6.5)cm, glabrous except for midrib below; quite densely scaly. Petiole pubescent. Flowers golden yellow, in dense axillary spikes 1.5-8.5cm long, pedunculate; petals 1.5-2mm long. Fruit 4-angled or narrowly winged, to 37 by 20mm, usually tomentellous and scaly.

K7; 1-100m; X-XI *

Riverine forest and bush/woodland; rather rare. Mvunyeyachi (SWA), Balabala (BON), Mshinda Lume (GIR), Sargorsa (SAN).

5. *Combretum capituliflorum* Schweinf.

(*C. stenanthum* Diels)

Liana to 20m; bark peeling. Leaves opposite or ternate, narrowly obovate, base subcordate, apex acute to acuminate, margins undulate, 7-20 by 2.5-5cm, glabrous (except sometimes midrib) with scattered scales. Flowers greenish-white or yellow, in axillary subglobose heads, pedunculate; petals 2 by 0.8mm. Fruit 4(-6)-winged, 30-40 by 15-20mm, wings 3-4mm wide.

K1/2,2,3; 900-1100m; I, X *

Riverine forest.

Ktenyon (PKT).

6. *Combretum chionanthoides* Engl. & Diels

RARE

Semiscandent shrub to at least 2m. Leaves opposite, narrowly elliptic or obovate, base obtuse or subcordate, apex acuminate, 7-15 by 2.5-6cm, glabrous, densely scaly. Flowers yellowish-cream, in axillary racemes, about 1.5cm long; petals 1.5 by 0.8mm,

clawed. Fruit 4-winged, 40-45 by 25-30mm.

K7; 50-200m; XI-XII *

Forest margins.

7. *Combretum collinum* Fres.

(incl. *C. binderanum* Kotschy, *C. elgonense* Exell, *C. fischeri* Engl., *C. mechowianum* sensu KTS, *C. soluense* Engl. & Diels)

Shrub or more often tree, 2.5-10m; crown flat or rounded; bark smooth and grey when young, later (when burned?) grey-brown and scaly or fissured. Leaves alternate, opposite or verticillate, glossy above, elliptic or (ob-)ovate, base cuneate or rounded, apex obtuse to acuminate, up to 22 by 11cm, glabrous to tomentose and densely scaly. Flowers white, cream or yellow, in (supra-) axillary spikes or panicles to 10cm long; petals 1.5-2.5 by 1-2.5mm. Fruit reddish brown or purple, often metallic, 4-winged, 25-50 by 20-40mm, glabrous to tomentose and densely scaly.

K12345; 700-2200m; I-IV, IX-XI.

Combretum wooded grassland, often a (sub-) dominant tree.

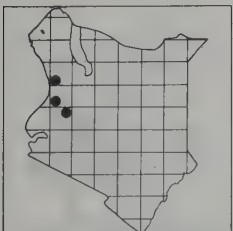
Murithi, Mururuka (EMB), Mutithi (KAM), Sheraha (LUH), Keyo (LUO), Asenuet (NAN, SEB), Ekimeng' (TUR). Yields a good charcoal.

Note. I prefer to treat this as a single, quite variable species as I find the proposed subspecies very difficult to distinguish; there seems to be a number of intermediates.

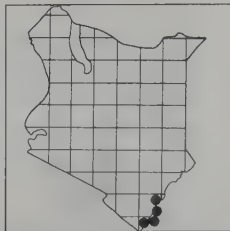
8. *Combretum constrictum* (Benth.) Laws.

Multistemmed (scandent) shrub 1.5-5m. Leaves (sub-)opposite or in threes, elliptic, base rounded, apex rounded or acuminate, to 12 by 6.5cm, glabrous or less often tomentose; petiole eventually forming a blunt, slightly hooked spine. Flowers red, in subcapitate spikes to 8cm long; petals 7-8 by 2.5mm. Fruit 5-angled, sessile, 23-27 by 12-15mm.

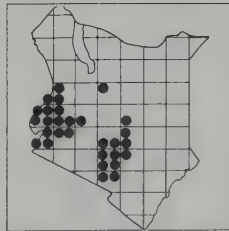
K17; 1-150m; I-VIII, X,XII



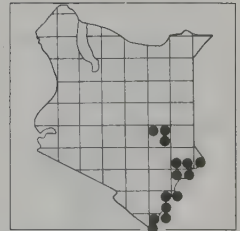
Combretum capituliflorum



C. chionanthoides



Combretum collinum



Combretum constrictum

Riverine, in seasonal swamps, on mangrove edges, sometimes thicket-forming at water holes.

Mnyonyore, Mganda-Simba (SWA), Gherebhe (ILW), Gherebe (ORM).

9. *Combretum contractum* Engl. & Diels

Shrub 2-4m. Leaves (sub-)opposite, elliptic or ovate, base cuneate, apex shortly and bluntly acuminate, 2-4.5 by 1-2.5cm, sparsely pilose and with small tufts in nerve-axils. Flowers creamy white, in axillary spikes to 3cm; sometimes several spikes together near branch-apex; petals 1.5-2 by 0.3mm. Fruit reddish-brown, 4-winged, 17-20 by 15mm, densely scaly, glabrous; wings about 5mm wide.

K147; 100-1000m; III-VI, VIII-IX *.

Acacia-Commiphora bushland, often locally common.

10. *Combretum exalatum* Engl.

Shrub or tree 1-5m (described as scandent in FTEA, but this is not corroborated by our specimens!). Young branches peeling. Leaves opposite, elliptic or obovate, base subcordate, apex rounded or retuse, up to 10 by 5.5cm, scaly, pubescent (at least beneath); leaves often inrolled. Flowers white or yellow, in axillary spikes to 2.5cm; petals about 1.5 by 0.8mm. Fruit yellowish, shallowly 4(5)-winged, 20-30 by 12-15mm, glabrous. K467; 250-1050m; I, III-V, VIII-XII (III-V, X-XII) Dry (*Acacia-Commiphora*) bushland, often in rocky situations; less often in bushed or wooded grassland. Mukokola (KAM). The wood is used to make bows by the Kamba.

11. *Combretum hereroense* Schinz

(incl. *C. volkensii* Engl.)

Shrub or tree 1-8m, often with drooping branches; bark grey, smooth or slightly fibrous. Leaves (sub-)opposite, often on short spur shoots; elliptic or obovate, base cuneate or rounded, apex retuse, rounded or acute, up to 7 by 4cm, glabrous to densely tomentose,

densely scaly. Flowers white, cream or yellow, in axillary spikes to 3cm long (sometimes branched), petals 1.5-2.5 by 1-2.5mm. Fruit reddish-brown or yellow, often shiny, 4-winged, 15-25 by 12-21mm, densely scaly and glabrous or pubescent.

K12347; 1-1400m; I, III-V, VIII-XII (III-V, X-XI)

Dry bushland (especially *Acacia-Commiphora*; lava or rocky sites) or woodland, often common to (sub-)dominant; in the North often along rivers or lugga's. Konkon (BOR, ORM), Mchera Ngombe (GIR), Musktonyo (PKT), Lbokish (SAM), Esikiriait, Ewapetait, Ekaraterate (TUR), Sirso, Kohkon (SOM).

NOTE. This is split into several ssp. and vars. in FTEA, but it is here considered as a single, variable species.

12. *Combretum illairii* Engl.

(*C. butyrosom* sensu KTS)

Shrub or liana 1-5m, evergreen. Leaves (sub-)opposite or in threes/fours, elliptic or slightly obovate, base obtuse, rounded or subcordate, apex acuminate, up to 14(23) by 6.5cm, glabrous or with slightly hairy midrib with inconspicuous scales. Flowers yellow, in axillary spikes, to 3(6)cm; petals 1.5 by 0.8mm. Fruit reddish brown, 4-angled or narrowly 4-winged, 13-25 by 10-15mm, glabrous.

K17; 1-350m; III-VI, VIII, X-XI *

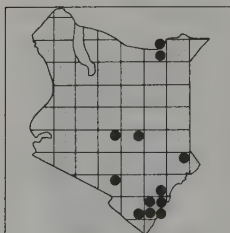
Evergreen coastal bushland or forest.

Mvuyi-Yachi (SWA), Mshinda-Alume (GIR).

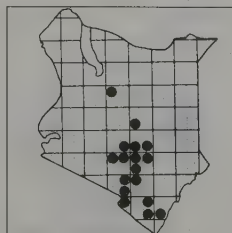
13. *Combretum molle* G. Don

(incl. *C. deserti* Engl., *C. microlepidotum* Engl.)

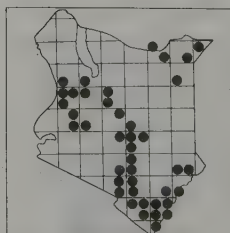
Tree, less often shrub, 2-8(12)m; bark greyish, rough, fissured; often young leaves and flowers appearing at the same time. Leaves opposite, elliptic or (ob-)ovate, base usually rounded or subcordate, apex obtuse or acute, up to 17 by 8cm, pubescent above and densely grey-tomentose beneath; densely scaly. Flowers yellow, in axillary spikes to 7cm long, or sometimes in



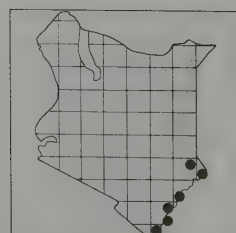
Combretum contractum



Combretum exalatum



Combretum hereroense



Combretum illairii

panicles; petals absent or up to 1 by 1mm. Fruit yellowish or reddish, 4-winged, 13-25 by 15-25mm, scaly, and tomentose to nearly glabrous.

K1234567; 150-2100m; II-V, VIII-XII (III, X-XII)

Wooded grassland, woodland, in the transition zone evergreen bushland/forest; also in dry (*Acacia-Commiphora*) bushland but then mostly confined to shallow rocky soils, lava or granites. Often very common on rocky hillsides.

Rokess (BOR & SOM), Mugoto (DUR), Rukeesa (GAB), Kiama, Muama (KAM), Murema (KIK), Kemeliet (KIP), Kumukira (KIS), Sheraha (LUH), Dunga, Keyo (LUO), Ol-mororoi (MAA), Cheporosto (PKT), Kembel (SEB), Eguren, Ekamiro (TUR). Produces an excellent charcoal, used for smelting iron by the Luhya.

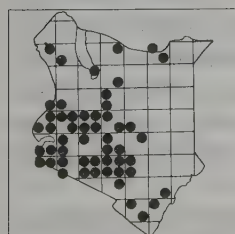
NOTE: In FTEA 2 forms are mentioned, form 'A' (K2,3) with thin, hardly hairy leaves; and form 'B' (K1,4) more of a straggling shrub, with small (up to 5.5 by 2.5cm) only lightly pubescent leaves.

NOTE: C.G. Trapnell (pers. comm.) feels that there are two species which have both been called *C. molle*. The common species has a deeply fissured bark and is widely spread; but there is also a similar tree with smooth bark, found in the dry country south of Lake Baringo and in the Ologesailie area. Representative specimens are Brunt 1535 and 1537.

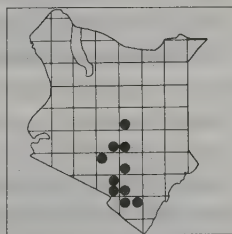
14. *Combretum mossambicense* (Klotzsch) Engl.
(incl. *C. ukambense* Engl.)

Shrub, mostly scandent, 2-6m; bark grey, smooth; petioles often remaining to form a spine. Leaves (sub-)opposite, elliptic, base rounded or cordate, apex usually acuminate, to 20 by 11cm but often smaller, hairy when young but glabrescent. Flowers greenish-white turning pink, in axillary spikes to 8 by 6cm; petals (5-)7-9 by 2-3.5mm. Fruit (4-) 5-winged, 22-42 by 20-30mm.

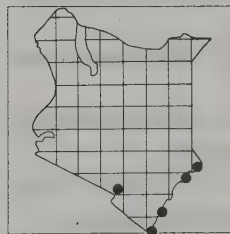
K47; 600-1450m; IV-IX, XI (V-IX)



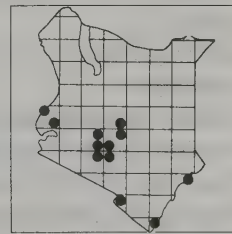
Combretum molle



Combretum mossambicense



Combretum padoides



Combretum paniculatum

Along rivers and luggas, also in wooded or bushed grassland or dry bushland and then often on rocky outcrops.

Mutangwai, Kitangwai (KAM).

15. *Combretum padoides* Engl. & Diels

(Scandent) shrub or tree 1-10m. Leaves (sub-)opposite, elliptic, base cuneate or obtuse, apex slightly acuminate, 5-10 by 1.5-3.5cm, glabrous or nearly so, sparsely scaly beneath. Flowers white or yellowish, in axillary or subterminal spikes to 10cm long; petals to 1.5 by 0.3mm. Fruit reddish or yellow, 4-winged, 15-20 by 15-20mm, glabrous.

K67; 1-1800m; VI, X *

Riverine, coastal forest or rich bushland.

16. *Combretum paniculatum* Vent. ssp. *paniculatum*

Sprawling shrub more often a liana, 2-20m. Petiole often remaining as a "spine". Leaves opposite, elliptic or (ob-) ovate, base cuneate or rounded (subcordate), apex rounded or bluntly acuminate, 4-17 by 2.5-8cm, glabrous or nearly so. Flowers brilliant red, in terminal or axillary panicles to 6cm long; appearing before or with the young leaves; petals about 2.5 by 2.5mm. Fruit 4- or 5-winged, 20-40 by 12-40mm, glabrous or pubescent.

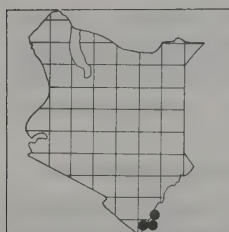
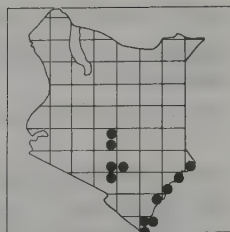
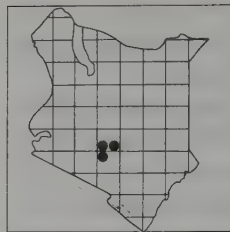
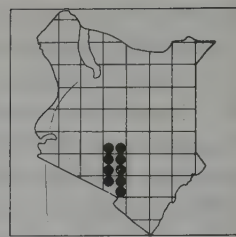
K457; 1-1800m; I-II, VI-VII, IX-XII

Riverine forest, wooded grassland, forest margins.

Kadoe (ILW), Kiongwa (KAM), Kiha (KIK), Shikaalikanga (LUH), Mdiritsamboko (LUO), Mangombe (TAI). Seeds very poisonous (Q. Luke, pers. obs.).

17. *Combretum pentagonum* Laws.

Climber 1.5-6m; young branches fulvous-tomentose. Leaves (sub-) opposite or in threes, elliptic or obovate, base narrow and subcordate, apex acuminate, 3-13 by 2-6cm, densely fulvous hairy beneath or almost glabrous (except for midrib); lower half of petiole

*Combretum pentagonum**Combretum schumannii**Combretum tanaense**Combretum zeyheri*

sometimes persistent as a spine. Flowers white, pink or red, in axillary pedunculate spikes, 1-3 by 1-2cm; petals 1.5-2.5 by about 1mm. Fruit 5-angled, 20-45 by 12-25mm, slightly acuminate, glabrous.

K7; 1-150m; II, XII *

Coastal evergreen bushland and forest.

Murusa-Rungu (GIR). The leaves are used in headache remedies by the Giriama.

18. *Combretum psidioides* Welw. ssp. *psidioides*

Shrub or tree to 17m; bark grey, smooth or rectangularly fissured. Leaves opposite, elliptic or ovate, base rounded or subcordate, apex rounded and often apiculate, 5-15 by 3-10cm, densely ferruginous-tomentose beneath when young, when older only on the veins. Flowers yellow, in axillary spikes to 10cm long, appearing with the young leaves; petals about 1 by 0.6mm. Fruit crimson or pink, 4-winged, up to 30 by 30mm, glabrous and scaly.

K4, once collected in SE Embu District (J. A. Robertson 65). Description from FTEA.

(Elsewhere) in woodland, often on rocky hill slopes.

19. *Combretum schumannii* Engl.

Shrub or more often a tree, 3-20(-30)m; bark brown, peeling or flaking to show paler underbark. Leaves opposite, elliptic, base cuneate or rounded, apex shortly and bluntly acuminate, 5-12 by 2-6cm, glabrous or nearly so. Flowers yellow, in axillary, almost globose heads 10-15mm across; petals 1.3 by 1.5mm. Fruit yellow-green, 4-winged, to 35mm across, glabrous or nearly so.

K47; 1-1000m; II-III, VIII, XI * (but many fruit collections).

Habitat variable, from wet or dry (coastal) forest to wooded grassland and dense bushland.

Mgurure (STAND), Mugurure (SWA, BON, GIR), Mugongolo (DIG), Muranyani (SAN).

Timber; wood with black hardwood, now used in

addition to *Dalbergia melanoxylon*, which is becoming rare due to overexploitation, as material for wood-carving; so-called "ebony nr. 2"

20. *Combretum tanaense* J.J. Clark

VULNERABLE

Scandent shrub or liana with long whippy branches at least to 10m. Leaves (sub-) opposite, elliptic or obovate, base cuneate or rounded, apex rounded or shortly acuminate, 4-15 by 2-7.5cm, glabrous. Flowers creamy white, in subterminal spikes (or panicles of spikes) to 8cm long, petals about 1 by 1.2-1.5mm. Fruit yellow-green, 4-winged, 20-23 by 18-20mm, glabrous and scaly.

K4; 900-1400m; VIII *

Endemic to Kenya; riverine forest. Known from only 4 collections.

21. *Combretum tenuipetiolatum* Wickens

ENDANGERED

Small tree. Leaves opposite, elliptic, base cuneate, apex shortly obtuse-acuminate to 8 by 3.5cm, glabrous but for domatia. Flowers yellow, in axillary spikes 5-10cm long; petals 0.8 by 1mm. Fruit reddish brown, 4-winged, 30 by 25mm, glabrous.

K7; 1-150m; I *

Known from 3 collections from coastal Kenya (Rabai, and Mombasa anno 1884) and adjacent Tanzania.

22. *Combretum zeyheri* Sond.

Tree 3-10m; bark brown, fissured. Leaves opposite or in threes, elliptic or obovate, base rounded, obtuse or subcordate, apex rounded, obtuse or acute, 5-15 by 3-8cm, tomentose when young but glabrescent later. Flowers greenish yellow, in axillary spikes to 8cm long; petals 1.5 by 0.8-1.2mm. Fruit light brown, 4-winged, 40-80 by 35-80mm.

K4; 1000-1500m; Many fruiting collections but none in flower.

Wooded grassland, woodland, and woodland/bush-land ecotone. May be locally dominant. Muthithi, Mutithi (KAM).

2. LUMNITZERA

Trees or shrubs; evergreen. Leaves spirally arranged, fleshy-coriaceous. Flowers bisexual, 5-merous. Stamens 10, biseriate. Fruit woody, crowned by persistent calyx.



Lumnitzera racemosa

Lumnitzera racemosa Willd.

Shrub or tree 2-4(9)m, evergreen; bark fissured, brown; knee-shaped breathing roots may be present. Leaves obovate or elliptic, base attenuate, apex rounded, 2-8 by 1-3cm, glabrous. Flowers white, in axillary spikes 2-7cm long; receptacle 6-8mm, petals 4 by 1mm. Fruit 10-12 by 3-5mm, glabrous or pubescent.

K7; 0-10m; III, VII-VIII, XII *

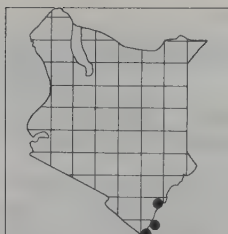
Mangrove swamps, at level of high water mark.

Kikandaa, Mkandaa-Mwitu (SWA). Good fuelwood.

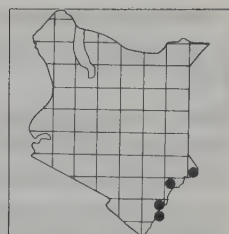
Used for poles.

3. PTELEOPSIS

Shrubs or trees. Leaves without scales or glands, (sub) opposite. Flowers bisexual and male, 4-5-merous, in terminal or axillary subcapitate racemes; stamens 10,



Lumnitzera racemosa



Pteleopsis tetraptera

in 2 series. Fruit 2-5-winged.

1. Lower receptacle glabrous; fruit 2-3(-5)winged, to 30 by 18mm

1. *P. myrtifolia*

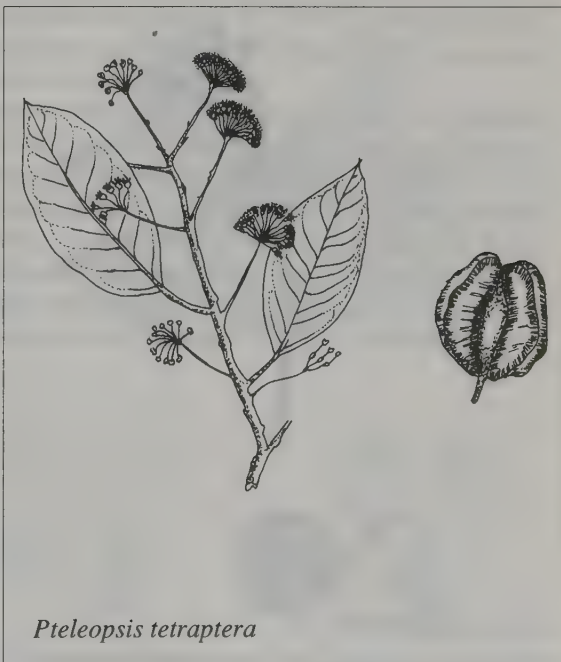
* Lower receptacle pubescent; fruit 4-8-winged, to 12 by 12mm

2. *P. tetraptera*

1. *Pteleopsis myrtifolia* (Laws.) Engl. & Diels

Tree 8-20m, deciduous; bark smooth, grey. Leaves (narrowly) elliptic or obovate, base cuneate, apex slightly acute or slightly acuminate, 3-9.5 by 1.5-3cm, glabrous or nearly so. Flowers white or yellow, in racemes to 4.5cm long; petals 1.5-2.5 by 1-2mm. Fruit 2-3(4-5)winged, 10-30 by 5-18mm; stipe 5-15mm.

K7; collected twice, in roadside vegetation near Mar-enji and near Mrima.



Pteleopsis tetraptera

2. *Pteleopsis tetraptera* Wickens

(*P. myrtifolia* of KTS, *Hymenocardia ulmoides* sensu KTS) **RARE**

Tree 4-12m, bark rough, brown-grey. Leaves elliptic, base cuneate or rounded, apex obtuse or acuminate, 4-7 by 1.5-3.5cm, pilose to almost glabrous. Flowers white or cream, in racemes 2cm long; petals 1.2 by 1-1.8mm. Fruit 4-8-winged, about 12 by 12mm; stipe about 7mm.

K7; 1-500m; I, IV, XII *

Coastal forest (secondary) bushland, *Brachystegia* woodland.

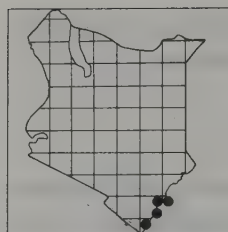
Mlakwenzi, Mwofu (SWA), Shola (BON), Muawa (DIG), Mutamakwalala (GIR).

4. QUISQUALIS

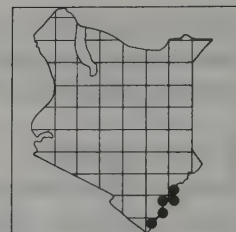
Lianas. Leaves (sub-)opposite; bases of petioles persisting as spines. Flowers bisexual, 5-merous, in axillary or terminal spikes; stamens 10, in 2 series. Fruit 5-winged.

***Quisqualis littorea* (Engl.) Exell**

Liana to at least 5m. Leaves ovate or elliptic, base cuneate, apex acute, 3-8 by 1.5-3.5cm, sparsely pubescent on venation. Flowers yellow, in spikes to 14cm long; petals to 6 by 3mm. Fruit 5-winged, 25-32 by 20-



Quisqualis littorea



Terminalia boivinii

25mm.

K7; 1-450m; I-IV, IX, XI-XII

Forest margins, secondary bushland, thickets.

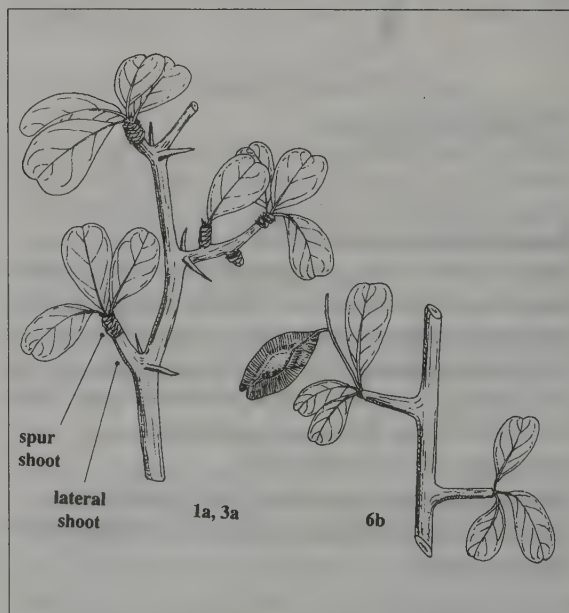
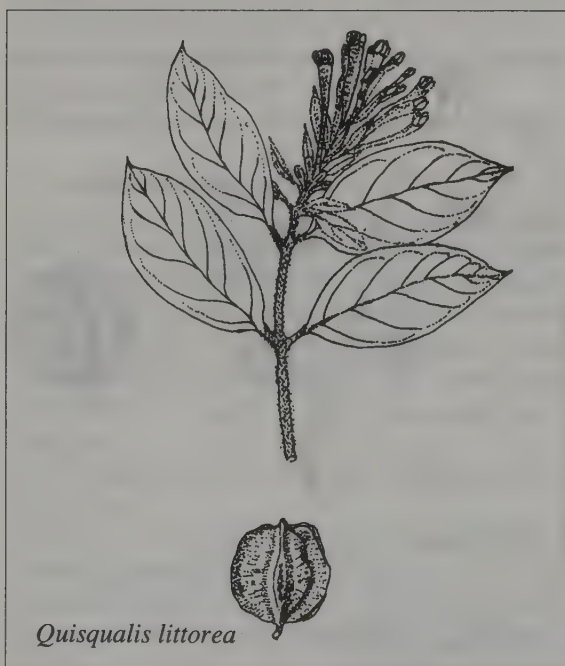
Mnyonyore, Mtindaziwa (SWA), Mbafu-Ng'ombe (GIR).

5. TERMINALIA

Shrubs or trees. Leaves spirally arranged, often crowded at ends of branches or on spur shoots (rarely opposite); without scales. Flowers usually bisexual and male, usually in axillary spikes; petals absent; stamens usually 10. Fruit 2-winged, rarely not winged.

1. Leaves crowded on short spur shoots, spines often present **2**

* Leaves spirally arranged, or sometimes crowded towards the end of lateral shoots **10**



2. Spines present **3**

* Spines absent **6**

3. Spines in pairs, at base of spur or lateral shoots

12. *T. spinosa*

- * Spines single, terminating lateral shoots 4

4. Lateral shoots at almost right angles to long shoots; fruit 4-6.5 by 2-3cm 10. *T. prunioides*

- * Lateral shoots at acute angles to long shoots; fruit less than 2.5 by 2cm 5

5. Leaves up to 1 by 0.5 cm; dry bushland

8. *T. parvula*

- * Leaves larger than 1.5 by 1cm; riverine

2. *T. brevipes*

6. Fruit not winged, but smooth or ridged; coastal evergreen bushland 1. *T. boivinii*

- * Fruit winged 7

7. Leaf base rounded or subcordate; may flower when leafless 7. *T. orbicularis*

- * Leaf base cuneate or attenuate 8

8. Leaves up to 1 by 0.5cm; flower spikes to 1.5cm long 8. *T. parvula*

- * Leaves usually larger; flower spikes 5-8cm long 9

9. Long shoots zig-zag; fruit 2.5-3 by 1.2-1.5cm (NE Kenya only) 9. *T. polycarpa*

- * Long shoots straight; fruit 4-6.5 by 2-3cm

10. *T. prunioides*

10. Large trees of coastal strip 11

- * Inland species 12

11. Forest trees; leaves to 13 by 7cm

11. *T. sambesiaca*

- * Cultivated trees gone wild; leaves 15-35 by 10-19cm 4. *T. catappa*

12. Older branches corky; leaves 16-37 by 7-19cm (W. Kenya) 6. *T. mollis*

- * Older branches fibrous, leaves less than 16 by 8cm 13

13. Flowers and fruit glabrous 3. *T. brownii*

- * Flowers tomentose; fruit puberulous (use lens)

5. *T. kilimandscharica*

1. *Terminalia boivinii* Tul.

(*T. fatraea* of KTS)

(map: see p. 138)

Shrub or tree 1.5-6 (12)m; bark smooth, greybrown. Leaves usually crowded on 2-5mm long lateral spurs, (narrowly) obovate or elliptic, base cuneate, apex obtuse or rounded, 1.5-6 by 1-2.5cm, glabrous when mature. Flowers yellowish, in spikes to 1.5(2.5)cm long. Fruit yellow-green, ellipsoid, not winged or ridged, 8-12 by 4-6mm.

K7; 0-400m; I, X *

Evergreen coastal bushland, often very common near high water mark.

Mchonga-Mahana (SWA), Mruruku (GIR).

2. *Terminalia brevipes* Pampan

Shrub or small tree to 9m, or climbing to 18m; bark rough, thorny. Lateral shoots ending in a spine, bearing short spur shoots. Leaves crowded on short spur shoots, obovate, base cuneate, apex obtuse or rounded, 1.5-6.5 by 1-3.5cm, glabrous or sparsely pubescent. Flowers white, in slender spikes to 7cm long, borne on spur shoots. Fruit yellow-brown, 18-24 by 18-20mm.

K17; 1-300m; I-II, VI-X, XII

Riverine or near waterholes.

Mwangati (SWA), Manga Msuri (DUR), Mokokola (ILW), Alango (ORM), Mkokola (PKM), Allan (SOM).

Used for building poles and carpentry.

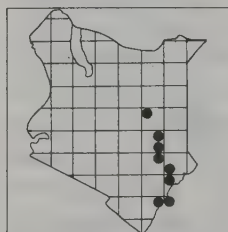
3. *Terminalia brownii* Fresen.

Shrub or tree 2.5-20m; bark fissured, greyish-brown. Leaves spirally arranged, obovate, base cuneate or obtuse, apex obtuse or shortly acuminate, 6-16 by 3-8cm, tomentose when young and pilose later. Flowers white or cream, in spikes to 12cm long. Fruit reddish purple, 35-55 by 22-40mm.

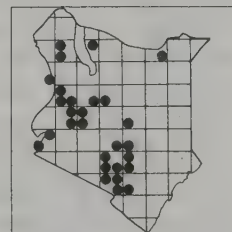
K123456; 650-1900m; I-II, IV-VIII, X, XII (I, VI-VII)

Deciduous bushland or woodland, often on rocky outcrops, or riverine.

Baresa (BOR), Kiuuku, Muuuku (KAM), Moissot (KIP), Manera, Onera (LUO), Goloswa (MAR), Mururuku (EMB), Haririgo (ORM), Koloswo (PKT), Lbukoi (SAM), Harar, Hareri, Biiris (SOM), Koloswet (TUG), Ekuyen (TUR). Bark decoction emetic, used as remedy for fevers and colds by the Turkana and Pokot; timber hard, durable, used in building; produces a good charcoal. Children eat the bitter fruits.



Terminalia brevipes



Terminalia brownii

4. *Terminalia catappa* L.

Tree to 30m or less often a shrub. Leaves obovate, base obtuse and subcordate, apex rounded or bluntly and shortly acuminate, 15-35 by 10-19cm, glabrous. Flowers white, in spikes to 15cm long. Fruit ovoid or ellipsoid, with 2 ridges, about 5-7 by 3-4 by 2-4cm.

Planted, but gone wild on the coast.

Bastard Almond, Indian almond (TRADE), Mkungu (SWA). The fruit is edible; the bark contains much tannin.

5. *Terminalia kilimandscharica* Engl.

Tree 3-10m; bark fissured, grey. Leaves spirally arranged, elliptic or obovate, base cuneate or rounded, apex rounded or shortly acuminate, 3-11 by 3-9.5cm, densely pubescent beneath. Flowers white or cream, in spikes to 8cm long. Fruit reddish brown, 55-110 by 25-65mm.

K467; (50-)400-1500m; I, III-IV *

Deciduous bushland or wooded grassland, often on rocky outcrops.

Very close to *T. brownii*.

Mbambaro (SWA), Leh-Heli (BON), Biress (BOR), Kiuuku, Muuuku (KAM). Used for timber.

6. *Terminalia mollis* Laws.

Tree (rarely shrub) 2.5-12m; bark greyblack, fissured. Leaves spirally arranged, elliptic or obovate, base cuneate or obtuse, apex rounded or acute, 16-37 by 7-19cm, densely tomentose beneath. Flowers white or cream, in spikes 8-17cm long. Fruit yellow-green, 65-120 by 25-55mm.

K35; 1000-1900m; I-III *

Combretum wooded grassland, sometimes co-dominant.

Olokhongwe (LUH), Opok (LUO). Produces good quality charcoal, used in iron-smelting by the Luhya; wood heavy, durable.

7. *Terminalia orbicularis* Engl. & Diels

Shrub or tree 2.5-7.5m, much spreading. Bark smooth, grey, peeling to show yellow-green underbark; young shoots zigzag. Leaves on short spur shoots, subcircular, base rounded or subcordate, apex shortly acuminate, up to 11 by 8.5cm, glabrous. Flowers red with yellow centre, appearing before or with the young leaves in spikes of 2.5-5cm. Fruit crimson to pale pink, 65-100 by 55-95mm.

K147; 100-1500m; III, V, IX-XI *

Acacia-Commiphora bushland, locally co-dominant. Lebokich (SAM), Bissik (BOR), Bisiqa (ILW), Bisik (ORM), Bisakh (SOM). Wood heavy, durable.

8. *Terminalia parvula* Pampan

Shrub small tree 2-4(6)m; bark grey, fissured; lateral shoots occasionally ending in a spine. Leaves crowded on short spur shoots, obovate, base cuneate, apex rounded, up to 1 by 0.5cm, glabrous. Flowers white or cream, in slender spikes to 1.5cm long. Fruit reddish, 18-25 by 12-18mm.

K147; 50-800m; II-VI, IX, XI-XII (V, XII)

Acacia-Commiphora bushland, may be locally dominant.

Horrodoobbo, Homhom (BOR), Qorhobo (ILW), Korobo (ORM), Massar-Jabbis (SOM).

9. *Terminalia polycarpa* Engl. & Diels

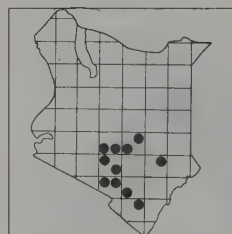
(*T. somalensis* Engl. & Diels)

Shrub or tree 3-15m; bark smooth, dark grey, long shoots zigzag. Leaves crowded on short spur shoots, obovate, base cuneate or attenuate, apex rounded or emarginate, to 5 by 3cm, glabrous to pubescent. Flowers white or cream, in spikes to 7.5cm long. Fruit yellowish-purple or pink, 25-30 by 12-15mm.

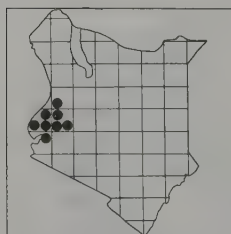
K1; 350-900m; XII *

Acacia-Commiphora bushland.

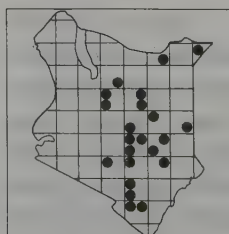
Korabo (BOR), Hareri (SOM), Mwanga, Mwangati (SWA).



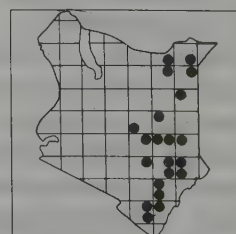
Terminalia kilimandscharica



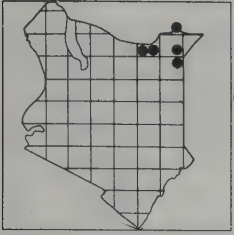
T. mollis



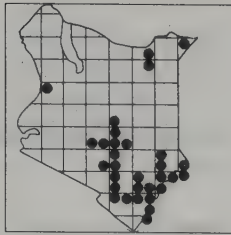
Terminalia orbicularis



Terminalia parvula



Terminalia polycarpa



Terminalia prunioides

Note. The type locality, Beila on the Dauda R., has not been traced.

10. *Terminalia prunioides* Laws.

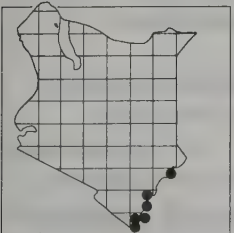
Tree or less often a shrub (2.5)4-15m; bark fissured in older trees; grey spines occasionally present on long shoots. Leaves crowded on the small spur shoots, obovate, base cuneate or attenuate, apex rounded or emarginate, up to 7.5 by 3.5cm, pubescent when young, later glabrescent. Flowers white or cream, in spikes 5-8cm long. Fruit red or purple-brown, 40-65 by 20-30mm.

K1247; 1-1200m; I-V, IX-XII.

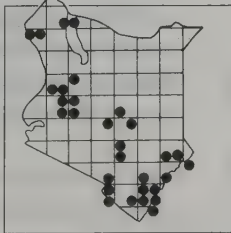
(*Acacia-Commiphora*) bushland or woodland, often near rivers or lugga's; on the coast also on saline soils. Mwangati-Punda (SWA), Korobo (BOR), Mwangata (GIR), Mwangata (ILW), Mutoo (KAM), Bires (ORM), Apetaa, Tikt (PKT), Korubo (SAN), Hareri (S)M, Musangano (TAI), Tikitua (TUG). The wood is very hard and durable, and is used in housebuilding and for dhow-keels (resistant to borers). A decoction is used by the Somali to relieve postnatal abdominal pains.

11. *Terminalia sambesiaca* Engl. & Diels

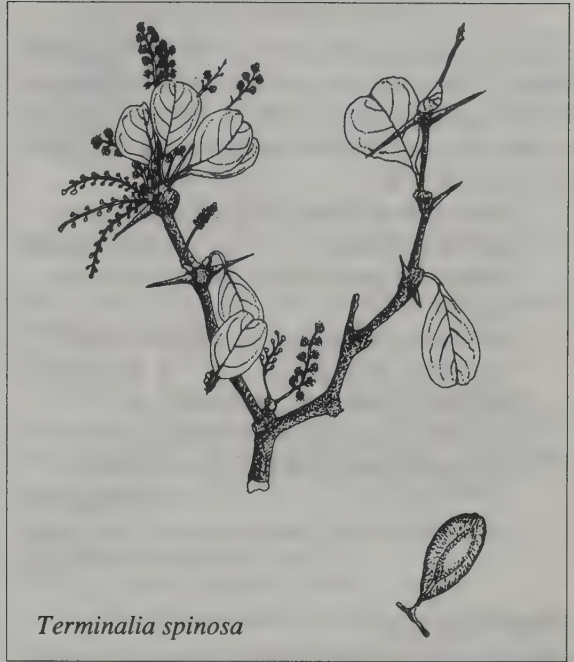
Tree 7-25m; bark grey (-black), fissured. Leaves spirally arranged, elliptic or obovate, base cuneate or almost rounded, apex (shortly) acuminate, up to 13(18) by 7(12)cm, pubescent, often becoming glabrous. Flowers white, in spikes up to 15cm long. Fruit purplish or reddish brown, 50-75 by 20-35mm.



Terminalia sambesiaca



Terminalia spinosa



Terminalia spinosa

K7; 1-250m; I-II, VIII, XII *

Forest (margins) or (secondary ?) woodland.

Mbombaro (SWA), Mbabare (BON). An excellent timber tree, of rapid growth; used for dhow masts.

12. *Terminalia spinosa* Engl.

Tree or rarely shrub, 3-20m; branching horizontally in planes; bark grey, fissured. Spines 2, frequently at base of spur shoots. Leaves crowded on short spur shoots, obovate, base cuneate, apex rounded or emarginate, to 4 by 3cm, glabrous or sparsely pubescent. Flowers white or yellowish, in spikes up to 6cm long. Fruit reddish brown or purple, 20-30 by 10-20mm.

K123467; 1-1600m; I, IV-VI, VIII-XII (XI)

Acacia-Commiphora- and coastal bushland, in wooded grassland, along lugga's, often in rocky sites; may be locally dominant.

Mwangati (SWA), Saeteh, Khorobbo (BOR), K'orobo (GAB), Mwangata (GIR), Mutula (KAM), Tikt (PKT), Hareri (SOM), Epata (TUR). The heavy wood is used for dhow keels, building poles, and Turkana stools; it is durable and termite-resistant. A bark infusion is used against jaundice by the Turkana.

Note: very rarely (Hemming 83/95, Timberlake 1563) a densely pubescent form is collected. Flowers or fruits of these are unknown.

122. RHIZOPHORACEAE

Leaves simple, opposite, with or without interpetiolar stipules. Flowers regular, axillary; calyx persistent, 4-15-lobed; petals as many as sepals. Stamens 2-4 times as many as petals; anthers usually 4-celled. Fruit a berry or a capsule.

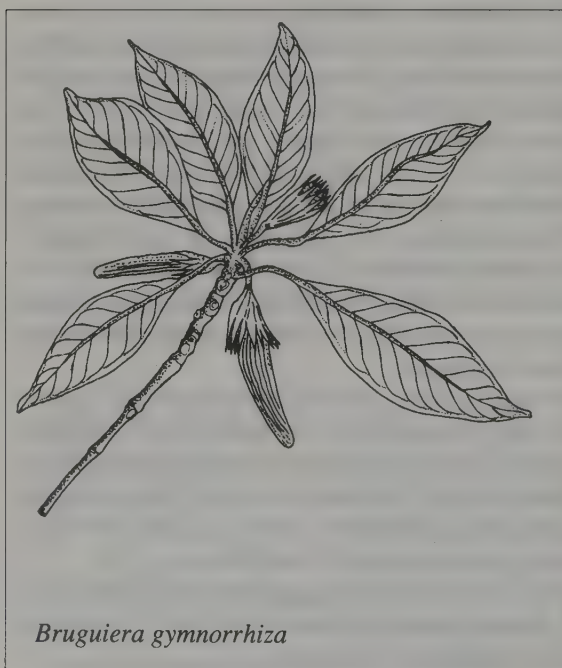
1. Inland trees or shrubs with rather thin, often toothed, leaves **2. Cassipourea**
- * Mangrove swamp trees or shrubs with thick leaves **2**
2. Leaf apex rounded and mucronate; special breathing roots absent **4. Rhizophora**
- * Leaf apex either acute or rounded, not mucronate; special breathing roots present **3**
3. Leaf apex acute; breathing roots like knees **1. Bruguiera**
- * Leaf apex rounded; breathing roots like fingers **3. Ceriops**

1. BRUGUIERA

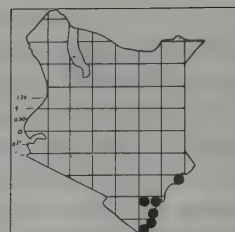
Mangrove trees. Flowers solitary. Calyx 8-15-partite. Petals bifid, with 3 cilia at the apex. Fruit a leathery berry.

Bruguiera gymnorrhiza (L.) Lam.

Tree 5-9m, evergreen; bark grey or reddish brown; stilt



Bruguiera gymnorrhiza



roots and knee-like breathing roots present. Leaves elliptic, base cuneate, apex acute, 5-15 by 2-6cm, glabrous. Flowers white or red, solitary; petals about 15mm long. Fruit bell-shaped, about 2cm long, with persistent calyx; hypocotyl to 11cm long on tree, cylindrical.

K7; 0-2m; II-IV, X *

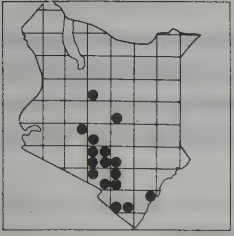
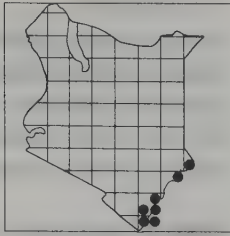
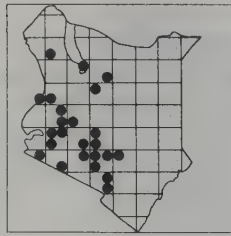
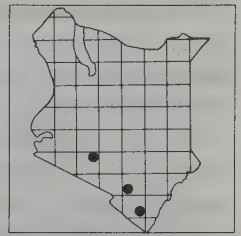
Mangrove, usually on inner edge or less exposed parts; also on intertidal beaches.

Muia (STAND, SWA), Msindi (SWA), Mchofi (DIG). Bark with high tannin-content; bark yields a dye.

2. CASSIPOUREA

Stipules present, but caducous. Flowers solitary to numerous; pedicels articulate; calyx 4-7 lobed; stamens 8-45; disk sometimes present. Style often persistent. Fruit a thinly fleshy capsule. Seeds with aril.

1. Leaves subcircular, with entire margin **5. C. rotundifolia**
- * Leaves elliptic or obovate, usually with toothed margins **2**
2. Plants of coastal strip, below 500m alt. **2. C. euryoides**
- * Inland plants, found above 650m alt. (and once on Mangua at 450m) **3**
3. Leaves glabrous; flowers in dense clusters, many per cluster **3. C. gummiflua**
- * Leaves (sparsely) pubescent or glabrous; flowers in loose groups, less than 8 together **4**
4. Plants from Kakamega/Nandi with at least some leaves more than 10 by 5cm; leaves pubescent beneath **6. C. ruwensorensis**
- * Leaves less than 8 by 5cm, glabrous or sparsely pubescent **5**
5. Plants of evergreen bushland on rocky sites; ovary densely hairy; fruit 3-5mm long **1. C. celastroides**
- * Plants of dry or moist forest; ovary glabrous or hairy; fruit 6.5-8mm long **4. C. malosana**

*Cassipourea celastroides**Cassipourea euryoides**Cassipourea malosana**Cassipourea rotundifolia***1. *Cassipourea celastroides* Alston**

Shrub or tree 1.5-5m. Leaves glossy, elliptic or obovate, base cuneate or rounded, apex rounded or subacuminate, margin minutely toothed (rarely entire), 2.5-4.5 by 1.5-3.7cm, glabrous or sparsely pubescent beneath. Flowers white or greenish, 1-3 together; petals 3-5mm long. Fruit subglobose, 3-5mm, densely puberulous. K1467; 250-1650m; I-II, IV-V, XII *

Evergreen bushland or thicket, usually on rocky hill-sides.

Muthongori (KAM).

2. *Cassipourea euryoides* Alston

Shrub or tree 1.5-14m. Leaves shiny, elliptic, base cuneate, apex obtuse or acuminate, margins entire or somewhat toothed, 3-10 by 1.5-5cm, glabrous or nearly so. Flowers greenish-cream, 1-3 together; petals 3-

4mm long. Fruit subglobose, 4-5mm, velvety; seeds black with red aril.

K7; 1-500m; V-VII, X-XII

Evergreen or deciduous forest or dense bushland.

Mwanzangu, Mugome (SWA), Mkulangi (BON), Mbazanji (BAJ), Masuzi (GIR). Timber hard, resistant to borers, durable; used for building poles.

3. *Cassipourea gummiiflua* Tul.

var. *ugandensis* (Stapf) J. Lewis

Tree 15-21m; bark smooth, pale grey. Leaves (broadly) elliptic, base cuneate, apex obtuse or subacuminate, margins entire or shallowly toothed, 3-16 by 2-6.5cm, glabrous. Flowers white, in dense globose clusters around the leaf axils; petals 3-4mm long. Fruit subglobose or ellipsoid, to 7mm long.

K4; 2000-2300m; - *

Moist evergreen (*Ocotea*) forest: S Mt Kenya, S Nyandarua/Aberdares.

Mukunguru (KIK). Wood hard.

4. *Cassipourea malosana* (Bak.) Alston

Tree 3-25m, evergreen; bark smooth and silvery, less often rough. Leaves elliptic, base cuneate, apex acuminate or obtuse, margins toothed (rarely entire), 2.5-8(10) by 1-5cm, sparsely pubescent beneath when young. Flowers greenish, white to yellowish, 1-5 together; petals 3.5-6mm. Fruit ovoid, 6.5-8mm long, pubescent but becoming almost glabrous.

K123456; 750-2550m; I-IV, III, X-XII.

Drier forest (Podo/cedar/olive), or understory in moister forest; also in forest remnants.

Muthaithi, Pillar Wood (TRADE), Muthaithi (KIK), Muangaita (KIP), Tendewa (MAR), Muchanja (MER), Martit (NAN), Mangweta (NDO, KIP), Lobbobo (SAM), Oliami-Orok, Ol-lorget (MAA), Maiti (TUG), Ekatha (TUR). Wood very hard, elastic, but attacked by borers; used for building.

*Cassipourea malosana*

5. *Cassipourea rotundifolia* (Engl.) Alston

Tree 5-14m. Leaves subcircular to elliptic, base obtuse to subcordate, apex rounded or obtuse, margins entire (rarely with distant teeth above the middle), 2-7 by 1.5-5.5cm, glabrous except for the midrib beneath. Flowers greenish white to pale yellow, 1-3 together; petals 4-5mm long. Fruit unknown.

K47; 900-1650m; II-IV, XII *

Evergreen forest or woodland.

Muthaithi, Mutiti (KIK).

Note: I am not convinced about the distinction between *C. malosana* and this species.

6. *Cassipourea ruwensorensis* (Engl.) Alston

Shrub or tree 3-12m; bark smooth. Leaves elliptic to slightly obovate, base cuneate, apex acuminate, margin toothed in upper part, 4-15 by 2-7cm, pubescent beneath. Flowers greenish cream, in dense several-(4-8)-flowered inflorescences; petals 4-6mm long. Fruit ovoid, to 6mm long, densely hairy.

K5; 1450-1600m; IV-V *

Kakamega and Nandi forests.

Mukoloho (LUH), Marteat (NAN). Wood fine-textured.

3. CERIOPS

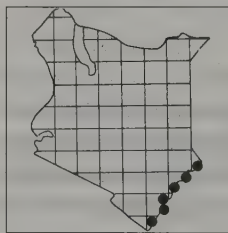
Mangrove trees. Inflorescences cymose, shortly pedunculate. Calyx 5-lobed; petals 5, membranous, appendaged. Stamens 10, inserted on a disk. Ovary inferior. Fruit a leathery berry, with all seeds but one aborting; seed viviparous.

***Ceriops tagal* (Perr.) C.B. Robinson**

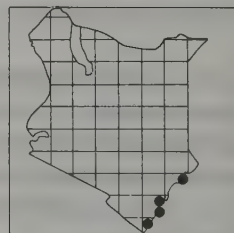
Shrub or tree 1.8-6m with stilt roots and finger-shaped aerial roots rising from mud. Bark fibrous. Leaves elliptic or obovate, base cuneate, apex rounded, 3-9.5 by 1.5-5cm, glabrous. Flowers white, in 4-8-flowered cymes; petals about 3 by 1mm, with 3 appendages. Fruit ovoid, about 2cm long; hypocotyl to 25cm long on tree, sharply ridged.

K7; sealevel; III, VII, X *

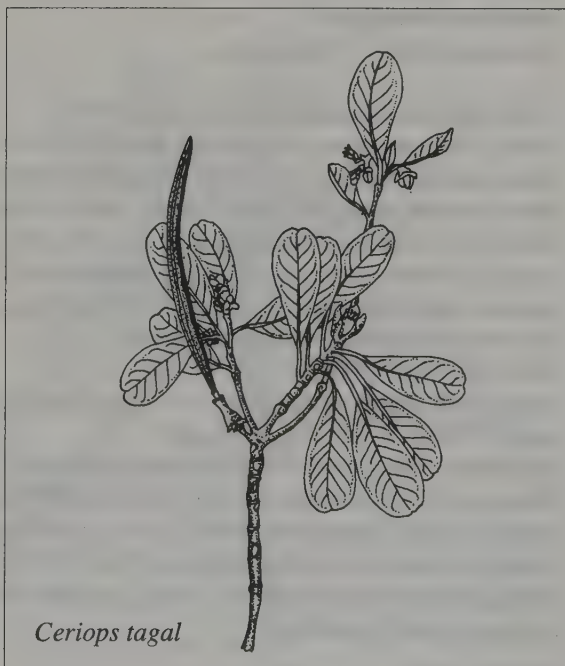
Inner side of mangrove swamps and in saline creeks. Mkandaa (TRADE, SWA). Bark with high tannin content; the wood is an excellent fuel.



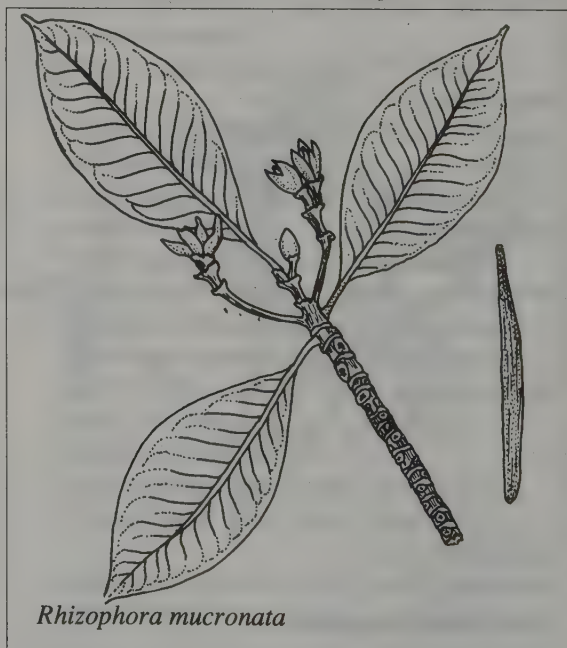
Ceriops tagal



Rhizophora mucronata



Ceriops tagal



Rhizophora mucronata

4. RHIZOPHORA

Mangrove trees. Inflorescences cymose. Calyx 4-lobed; petals 4, fleshy, with hairy margins. Stamens 8-12. Ovary (half-) inferior. Fruit a leathery berry; seed usually solitary, viviparous.

Rhizophora mucronata Lam.

Tree 3-12m, with stilt roots; bark redbrown. Leaves cork-dotted beneath, elliptic, base cuneate, apex mucronate, 8-18 by 4-9cm, glabrous. Flowers cream, in 4-8-flowered cymes; petals fleshy, about 8mm long. Fruit obovoid, to 4 by 2.5cm; hypocotyl to 40cm long on tree, cylindrical.

K7; sealevel; I-IV, X *

Outer edge of mangrove swamps, often dominant. Mkoko (TRADE, SWA, DUR). Produces superior building poles; produces good charcoal; split branches are used for basketry; the bark has a high tannin content.



Calophyllum inophyllum

126. GUTTIFERAE

(including HYPERICACEAE)

Plants usually with latex (yellow, orange or clear). Leaves usually opposite, without stipules, usually with translucent glands (visible against the light). Sepals 4-5; petals free, 4-5; stamens many.

1. Young stems with star-hairs; petals densely hairy within 2
- * Young stems glabrous; petals not hairy within 3
2. Sap orange or red; leaves 7-18cm long; filaments hairy; fruit 3-4mm 3. *Harungana*
- * Sap absent (?); leaves 3-7cm long; filaments glabrous; fruit 6-10mm 5. *Psorospermum*
3. Plant with driftseeds, growing close to beach; leaves 8-20 by 5-12cm, with many closely parallel veins 1. *Calophyllum*
- * Inland plants; leaves with different venation 4
4. Leaves sessile, usually clasping the stem at base 4. *Hypericum*
- * Leaves with petioles more than 3mm long 5
5. Leaves with black glandular dots 6. *Vismia*
- * Leaves with translucent resin canals 2. *Garcinia*

1. CALOPHYLLUM

Calophyllum inophyllum L.

Tree 7.5-30m, evergreen; usually with short trunk and

spreading branches. Leaves elliptic to slightly obovate, base cuneate to rounded, apex rounded or emarginate, 8-20 by 5-12cm, glabrous, with many closely parallel veins. Flowers white, in 7-15cm long false racemes; petals 9-15mm long. Fruit green, round, 2.5-4cm.

K7; near sealevel; V, X *

A regular drift-seed. Known from areas close to the beach at Kipini, Malindi, Shanzu and Kaya Kinondo. Mtondoo (SWA). The fruit yields a useful oil; the wood is excellent for boat-building.

2. GARCINIA

Plants contain yellow latex. Leaves with translucent resin canals. Flowers male, female or bisexual. Fruit a berry.

1. Leaves usually in threes; petals 3-6mm long; riverine, or in coastal forest 2. *G. livingstonei*
- * Leaves usually opposite; petals 8-9mm, or twigs sharply angled 2
2. Leaf apex long-acuminate; sepals and petals in fours 1. *G. buchananii*
- * Leaf apex acute or apiculate; sepals and petals in fives 3. *G. volkensii*



1. *Garcinia buchananii* Bak.

(*G. huillensis* of KTS)

Tree 6-15m. Leaves elliptic, base cuneate, apex acuminate, 6-12 by 2-5cm, glabrous. Flowers white, yellow or orange, axillary or terminal, solitary (female) or in short cymes (male); petals 8-9mm long. Fruit orange to red, round, 2-2.5cm.

K23567; 50-400m (coast) & 1350-2000m (inland); - * Moist forest or dense wooded grassland.

Maset, Nderiot (KIP), Omuserere (KIT, WAT), Eshimwani, Kumukhomeli (LUH), Onjak (LUO), Norkipiren (MAA). Fruit edible; the hard wood is used for building.

2. *Garcinia livingstonei* T. Anders

Tree 6-20m, less often a shrub of 1-3m; bark grey, reticulate; in large trees the branches are characteris-

tically arcing; branches often in threes. Leaves opposite or more usually in threes, elliptic or (ob)ovate, base cuneate or rounded, apex rounded or acute, margin entire or crenate, 4-14 by 1.5-11cm, glabrous and somewhat glaucous beneath. Flowers cream to pale pink, in axillary bunches, often on leafless branches; petals 3-6mm long. Fruit yellow, orange or red, ellipsoid or round, 1-3cm long.

K13467; 1-1900m; III, VII-XI (IX)

In riverine forest or -thicket, also on rocky outcrops away from water, on the coast also in forest away from water.

Mpekechu (SWA), Mangales (BON), Mufodzohi (GIR), Mchichozi (ILW), Mukanga (KAM), Dariss (ORM), Gandole (PKT), Ikasiyai, Iyoret (SAM), Chan-farod (SOM). Fruit edible. Three-pronged twigs are used as stirring rods in cooking.

3. *Garcinia volkensii* Engl.

Tree 5-20m. Twigs often sharply 4-angled, flattened. Leaves opposite, rarely in 3 or 4, elliptic or (ob)ovate, base cuneate or rounded, apex acute or apiculate, 4-14 by 2-8cm, glabrous. Flowers cream, dioecious, in terminal few- to many-flowered cymes; petals 4-9mm long. Fruit yellow or orange, round or lobed, 1-3cm long.

K3467; 900-2400m; III, IX, XI-XII *

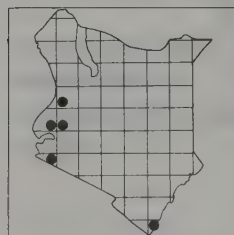
Moist (*Ocotea*) forest, also in dry evergreen forest.

Mchichozi (ILW), Mulaliondo, Muthithu (KAM), Munyawa (KIK), Mchathi (MER), Dariss (ORM), Chan-farod (SOM), Munyanga, Mungecha (TAI). Wood hard, heavy, but liable to borer attack.

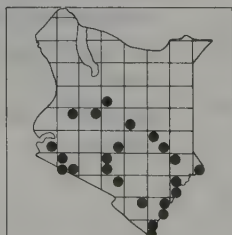
Note: Robertson & Luke 5945, recently found in Gongoni Forest, is probably this species, which brings down the lower altitude limit considerably.

3. HARUNGANA

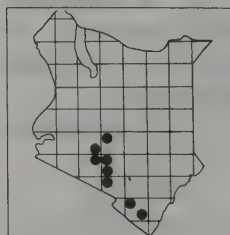
Leaves with glandular dots and stellate or tree-like hairs. Flowers 5-merous, in terminal cymose panicles.



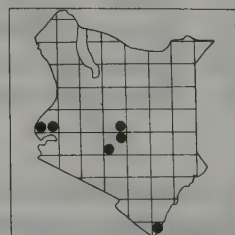
Garcinia buchananii



Garcinia livingstonei



Garcinia volkensii



Harungana madagascariensis



JOY



JOY



Calyptrorhiza somalensis, pg 87

JOY



Oncoba routledgei,

JOY





Combretum constrictum, pg 133.

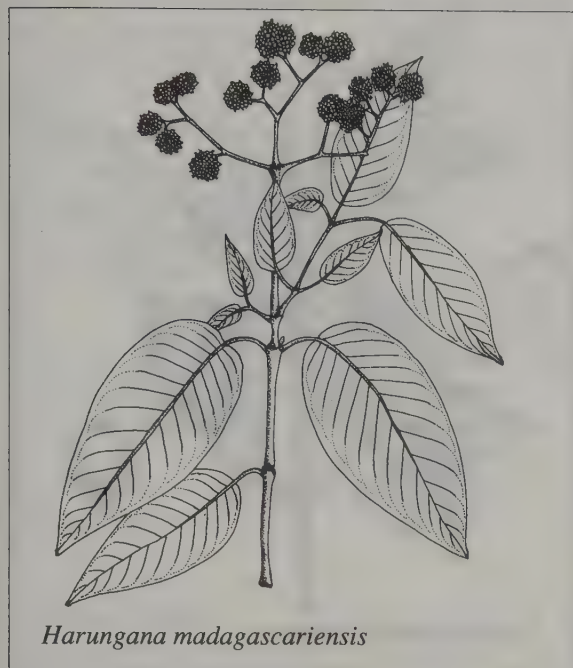
JOY



Cassipourea rotundifolia, pg 144

JOY





Harungana madagascariensis

Petals hairy within. Styles 5. Fruit a drupe.

***Harungana madagascariensis* Poir.**

Tree 3-18m; bark reticulate-scaly; sap orange or red. Leaves ovate, base rounded or subcordate, apex acute or shortly acuminate, 7-16 by 3-8cm, rusty-stellate beneath. Flowers cream, in large panicles; petals 2-3mm long. Fruit yellow, orange or red, round, 3-4mm. K457; 1-450m (coastal) & 1200-1650m (inland); I-II, IV-VIII *

Moist forest margins (or remnants of forest).

Mbura (SWA), Mbonobono, Mukokotsaka (DIG), Muithathua (KIK), Munyanwe (MER, EMB), Musila (LUH), Chepsebil (NAN). The tree pollards freely; leaf and bark are used against bloody diarrhoea by the Luhya; the wood is light but fairly durable.

4. HYPERICUM

Leaves with glandular dots or resin canals. Flowers terminal, solitary or in cymes. Sepals and petals 5, persistent. Stamens many, in groups. Styles 3-5. Fruit a capsule, or indehiscent.

- | | |
|--------------------------------|------------------------|
| 1. Flowers in cymes | 2 |
| * Flowers solitary | 3. <i>H. revolutum</i> |
| 2. Leaf apex rounded or obtuse | 1. <i>H. kiboense</i> |
| * Leaf apex acute | 3 |

- | | |
|------------------------------|---------------------------|
| 3. Leaves with linear glands | 2. <i>H. quartinianum</i> |
| * Leaves with dot glands | 4. <i>H. roeperanum</i> |

1. *Hypericum kiboense* Oliv.

Shrub 0.5-2m. Leaves elliptic or slightly ovate, base cuneate or rounded, apex rounded or obtuse, 6-17 by 2-7mm, glabrous, with translucent dots. Flowers yellow, solitary or in few-flowered cymes; petals 8-13mm long, with a few black dots on the margin. Fruit round, about 4mm.

K1346; 2250-3250m; I, VIII, XI-XII *

Dry forest margins, *Hagenia*/bamboo zone, *Hypericum* zone.

2. *Hypericum quartinianum* A. Rich.

Shrub 1.5-2.5m. Leaves elliptic, base narrow and clasping, apex acute, 2-8 by 0.6-2.5cm, glabrous, with black marginal glands. Flowers yellow, in terminal cymes; petals 2-3cm long with black marginal dots. Fruit ellipsoid, 9-12mm long.

K35; 1500-2250m; I-XII (VIII-IX)

Rocky streambanks.

3. *Hypericum revolutum* Vahl

(*H. lanceolatum* Lam., *H. keniense* Schweinf.)

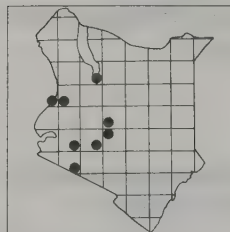
Shrub or tree 1-10m; bark redbrown, scaly. Leaves narrowly elliptic, base narrow and clasping, apex acute, 1.1-3 by 0.2-0.6cm, glabrous. Flowers yellow-orange, solitary and terminal; petals 2.5-4cm long. Fruit ellipsoid, 11-15mm long.

K13456; (1800) 2100-3250m; I-XII (II, XII)

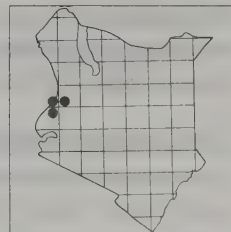
Forest margins, *Hagenia*-*Hypericum* zone, heath zone.

- ssp. *keniense* (Schweinf.) Robson is distinguished by 2 basal veins reaching unto the upper half of the leaf; leaves also longer (to 5cm); alt. 2700-3800m. *Hagenia* - *Hypericum* and heath zone.

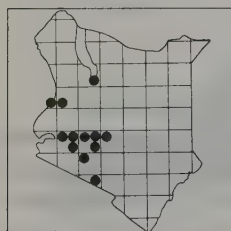
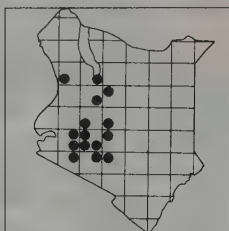
Giant St. John's Wort (STAND), Susimua (KIK), Biriwarokiet (KIP), Chepborikororiet, Chepkoberet



Hypericum kiboense



Hypericum quartinianum

*Hypericum revolutum**Psorospermum febrifugum**Hypericum revolutum**Hypericum roeperanum*

(ELG), Kwalolia (MAR), Osasimwa (MAA), Chepsigaga (PKT).

4. *Hypericum roeperanum* A.Rich.

Shrub or tree 0.5-6m. Leaves elliptic, base narrow and clasping, apex acute, 2.5-9 by 0.8-2.3cm, glabrous. Flowers orange, in terminal corymbose cymes; petals 20-28mm long. Fruit ellipsoid, 8-10mm long.

K12346; 1200-2650m; I-II, IV-VIII, X-XII

Riverine thickets or rocky sites near rivers; less often in forest margins away from water.

Kaniathenge, Sasimua (KIK).

5. PSOROSPERMUM

Leaves with stellate hairs and translucent glandular dots. Petals 5, hairy within. Fruit a berry.

Psorospermum febrifugum Spach

Shrub or tree 1.5-6m. Leaves elliptic, base cuneate, apex obtuse or shortly acuminate, 3-7 by 1.5-4cm, densely reddish stellate-hairy beneath or almost glabrous. Flowers white flecked with red, in terminal panicles; petals 4-6mm long. Fruit red, round, 6-10mm, crowned by the style.

-var. *febrifugum* - stellate-hairy on midrib only.

K5; collected once in 'Kavirondo'

-var. *ferrugineum* (Hook.f.) Keay & Milne-Redh. - densely stellate-hairy beneath.

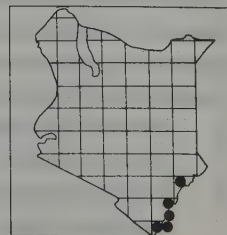
K7; 300-450m; V, XII.

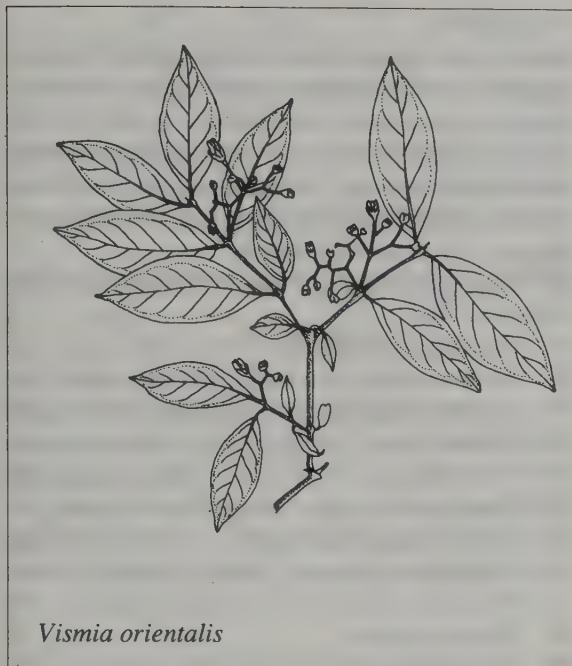
Shimba Hills, in wooded grassland.

Mlashori (DIG).

6. VISMIA

Leaves with black glandular dots. Petals hairy within. Fruit a berry.

Vismia orientalis

*Vismia orientalis****Vismia orientalis* Engl.**

Shrub or tree 3-7.5m. Leaves elliptic, base cuneate, apex acuminate, 4-13 by 2-5.5cm, glabrous. Flowers white with pink tips, in terminal panicles; petals 5-6mm long. Fruit dull white or pink, round with the style at the apex, 6-8mm.

K7; 1-400m; IV-VI, XII

Forest (margins).

Mugwe (SWA, GIR), Mpera (DIG), Mukasibila (SAN). A root decoction is used as a tonic by the Digo; the wood is used in housebuilding.

128. TILIACEAE

Plants often with stellate hairs; leaves alternate, with small and often deciduous stipules. Flowers usually in cymes; sepals usually 5, petals 5, often with a glandular claw or gland at base. Stamens usually many, often on a raised body.

- | | | |
|----|--|----------------------|
| 1. | Leaves lobed; fruit with bristles | 2 |
| * | Leaves entire | 3 |
| 2. | Leaves 5-lobed; flowers pink; fruit 2-3cm long | |
| | 4. <i>Sparrmannia</i> | |
| * | Leaves 3-lobed; flowers yellow; fruit 0.5-2cm long | 5. <i>Triumfetta</i> |
| 3. | Sepals connate into a 2-5 lobed calyx; coastal plants with large leaves (generally over 10cm | |

long) 4

* Sepals free, 5; leaves usually smaller 5

4. Fruit winged; flowers unisexual

1. *Carpodiptera*

* Fruit round; flowers bisexual 2. *Christiana*

5. Sepals inside with the same colour as the petals; petals usually with a glandular body at base; fruit smooth or hairy, rarely minutely warty

3. *Grewia*

* Sepals green; petals without glandular base; fruit with bristles

5. *Triumfetta*

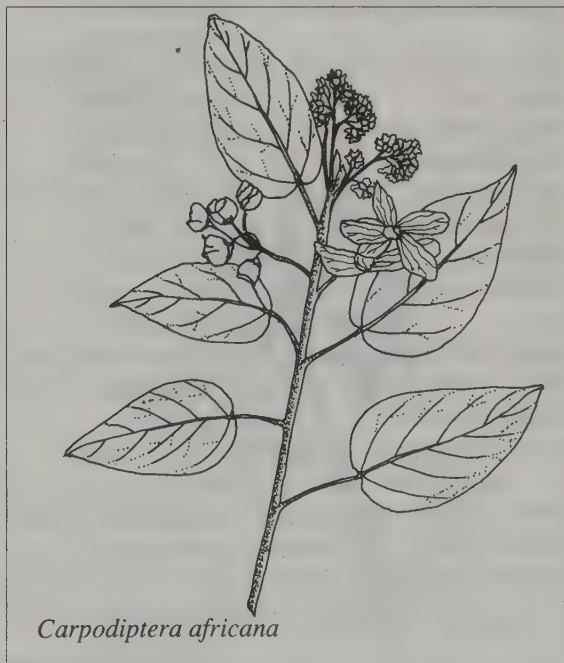
1. CARPODIPTERA

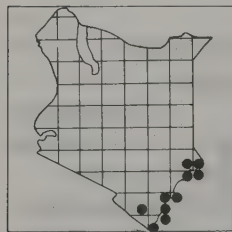
Inflorescence of axillary cymes, stellate-hairy. Fruit a 2-valved capsule, each valve with 2 unequal wings.

***Carpodiptera africana* Mast.**

Shrub 2-4m but more usually a tree to 12m; bark grey, longitudinally fissured. Leaves ovate or broadly elliptic, base rounded or cordate, apex obtuse to acuminate, margin entire or repand, 5-25 by 3-14cm, stellate-pubescent when young but soon glabrescent. Flowers white, in axillary cymes, unisexual and usually dioecious; petals 5-6mm long. Fruit ellipsoid, with 2 pairs of wings to 5cm long.

K7; 1-100m; I-VII, XII.

*Carpodiptera africana*

*Carpodiptera africana*

Forest margins, (secondary) bushland, wooded grassland; may form pure stands after burning.

Mtawanda, Mwanga, Mwanga-Maima (SWA, GIR), Mlange (BON), Mjoroge (GIR). This tree coppices well; the wood bends easily and is used in building.

2. CHRISTIANA

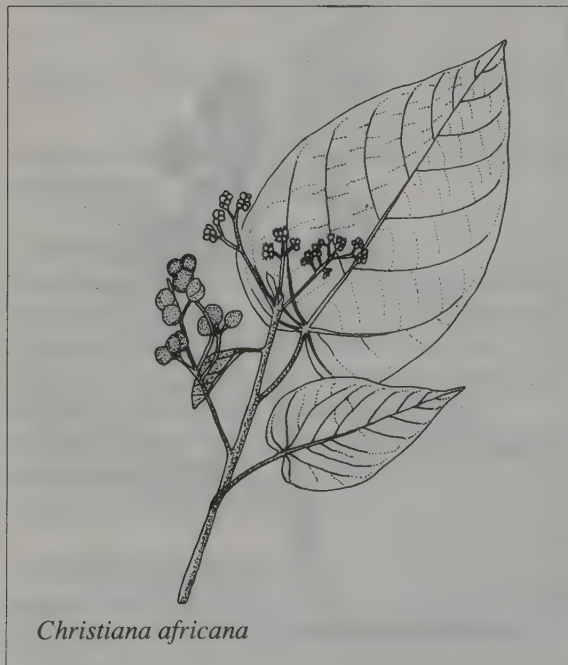
Inflorescence of axillary cymes, stellate-hairy. Ovary of 2-5 free carpels. Fruit dehiscent into two.

Christiana africana DC.

Tree to 12m. Leaves broadly ovate, base cordate, apex acuminate, 11-24 by 8-15cm, stellate-pubescent. Flowers white, in axillary cymes; petals 4-5mm long. Fruit ellipsoid, 9-11mm long, densely hairy.

K7; 100-400m; VII *

Degraded forest, collected at Kiruku Hill and Mwele Mdogo (locally dominant); possibly a pioneer species.

*Christiana africana*

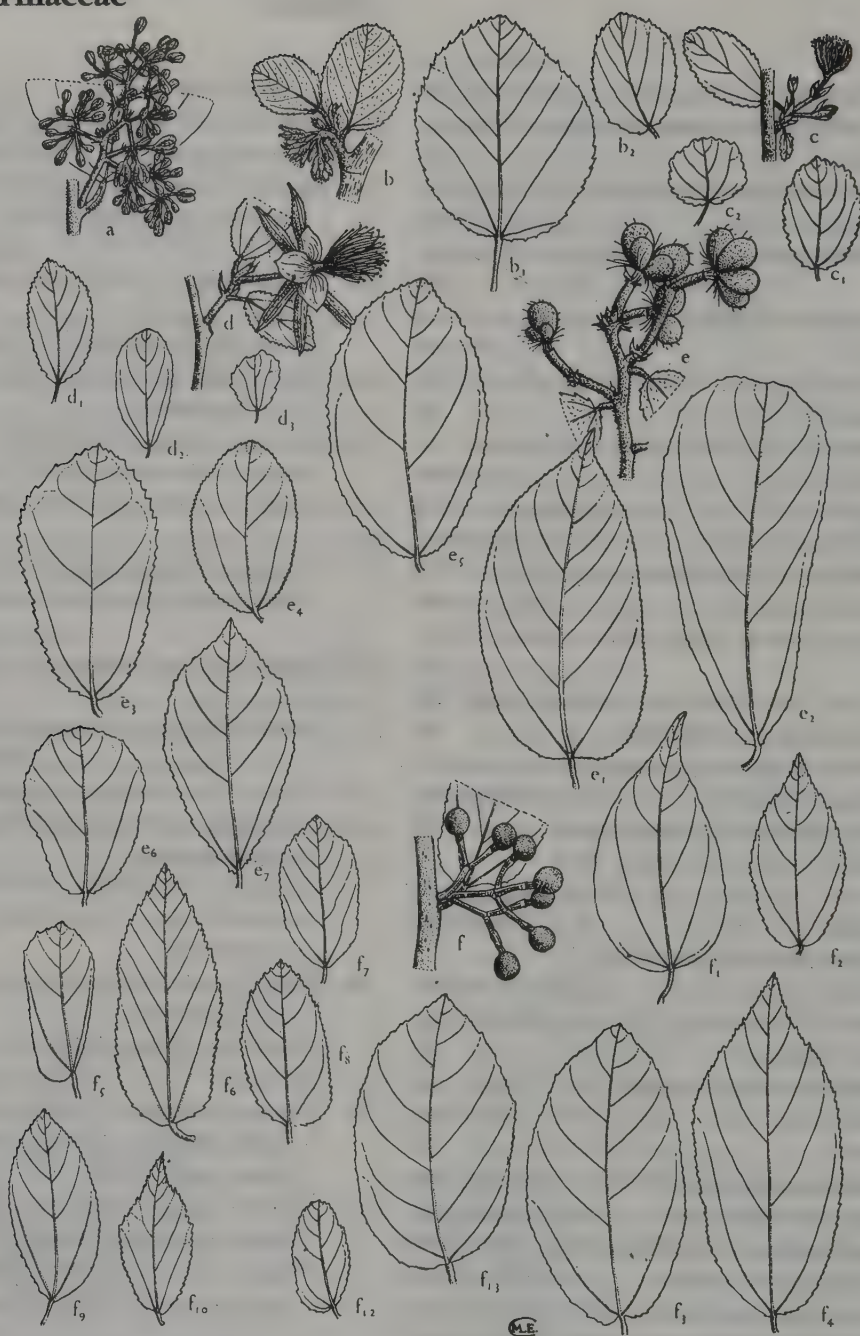
3. GREWIA

Plants with stellate hairs. Leaves usually serrate-dentate, 3-nerved at the base, with stipules. Flowers in cymes or (more rarely) in panicles. Sepals coloured within, usually in the same colour as the petals. Petals shorter than the sepals, usually with a gland or claw at the base, often notched at the apex. Stamens many. Fruit a 1-4-lobed drupe or berry.

1. Leaf margin entire or nearly so (coastal species) 2
- * Leaf margin toothed 3
2. Flowers white, in terminal panicles; leaves beneath densely hairy 2. *G. calymmatosepala*
- * Flowers yellow, in axillary cymes; leaves glabrous or nearly so 26. *G. vaughanii*
3. Leaf apex truncate; flowers white, sepals 15-25mm long; fruit warty 25. *G. truncata*
- * Leaf apex not truncate; flowers and fruits various 4
4. Flowers present 5
- * Fruits present 35
5. Flowers appearing with or before young leaves (leaves less than 1cm long) 6
- * Flowers appearing after (very) young leaves 7
6. Flowers white; petals 4-5mm long
17. *G. praecox*
- * Flowers pink or lilac; petals 8-12mm long
10. *G. lilacina*
- (rarely 1. *G. bicolor*, with yellow flowers; rarely 21. *G. tembensis*, flowers white, petals 4-8mm)
7. Flowers yellow 8
- * Flowers white, pink, or purple 25
8. Petals 9-16mm long (sepals 14-20mm)
7. *G. forbesii*
- * Petals less than 8mm long 9
9. Inflorescence terminal, leaf-opposed, or extra-axillary. Petals tiny, reddish. Flowers usually bisexual. Leaves densely hairy beneath
27. *G. villosa*
- * Inflorescence axillary; petals yellow 10
10. Leaves discolorous; blade beneath with dense grey or white tomentum 11
- * Leaves not discolorous, blade beneath tomentose or not, but not grey or white 20
11. Petals almost round 5. *G. fallax*
- * Petals oblong 12
12. Leaf beneath with the veins as hairy as the rest of the blade 13

- * Leaf beneath with the veins less hairy than the rest of the blade, sometimes almost glabrous 16
- 13. Peduncle less than 1cm long; leaves 1-4.5 by 0.8-1.7cm, Voi area 24. *G. tristis*
- * Peduncle usually longer; leaves usually wider 14
- 14. Leaf margins finely toothed; sepals to 14mm long 1. *G. bicolor*
- * Leaf margins with clear teeth; sepals to 11mm long 15
- 15. Leaves 4-12 by 2-6cm; flowering branches flattened 13. *G. mollis*
- * Leaves 1-4 by 0.8-3cm; flowering branches round (northern Kenya) 15. *G. penicillata*
- 16. Peduncle less than 1cm long; leaves 1-4.5 by 0.8-1.7cm; Voi area 24. *G. tristis*
- * Peduncle usually longer; leaves usually wider 17
- 17. Leaf base very asymmetric, at least on one side (sub-)cordate; coastal strip 18
- * Leaf base at most slightly asymmetric, cuneate to obtuse; widespread 23. *G. trichocarpa*
- 18. Sepals 7-8mm long; leaves papery 19
- * Sepals 8-14mm long; leaves thick 16. *G. plagiophylla*
- 19. Climber (alt. 1-300m) 4. *G. ectasicarpa*
- * Shrub or tree (alt. 350-1450m) 11. *G. micrantha*
- 20. Sepals 12-20mm long; leaves slightly sandpapery above 21
- * Sepals less than 12mm long, or if 12mm, then with fluted stems; leaves rarely sandpapery above 22
- 21. Coastal species, below 300m alt.; climbing shrub with cuneate leafbase 4. *G. ectasicarpa*
- * Inland species, above 950m; shrub with rounded or subcordate leafbase 6. *G. flavescens*
- 22. Stems fluted; petals 5-7mm long; leafbase rounded or subcordate; coastal species below 400m 9. *G. holstii*
- * Stems not fluted; petals 2-4mm long or inland species above 900m with cuneate or rounded leafbase 23
- 23. Leaf apex rounded or obtuse; leaves glabrous except for the veins; coastal species 3. *G. densa*
- * Leaf apex acute or acuminate; leaves pubescent or uniformly glabrous 24
- 24. Sepals 5-6mm long, petals 2-3mm long; leaves minutely pubescent above 12. *G. microcarpa*
- * Sepals 6-11mm long, petals 3-7mm long; leaves more or less glabrous above 23. *G. trichocarpa*
- 25. Leaves densely pubescent/tomentose beneath 26
- * Leaves glabrous or sparsely hairy beneath 28
- 26. Flowers pink-lilac, solitary, on short shoots; sepals 12-17mm long 10. *G. lilacina*
- * Flowers several, or if solitary, then axillary to spaced leaves and sepals 7-12mm long 27
- 27. Flowers in terminal cymes; petals white (coast) 28
- * Flowers axillary or leaf-opposed, or if terminal then sepals 6-9mm long and petals pink or red 29
- 28. Sepals 9-11mm long; petals 2-5mm long 20. *G. sulcata*
- * Sepals 12-15mm long; petals 6-7mm long 19. *G. stuhlmannii*
- 29. Petals 1-4mm long; leaves either 2-20 by 1.8-22cm or 6-19 by 2.5-7.5cm and then with acuminate apex 30
- * Petals more than 6mm, or if 4-8mm then leaves 0.8-4.5(8) by 0.5-2.5(4)cm with obtuse or rounded apex 31
- 30. Petals 1-4mm long, translucent, pink or red; dry bushland species 27. *G. villosa*
- * Petals 1mm long, white; moist forest species (coast) 2. *G. calymmatosepala*
- 31. Flowers solitary, on 2-4cm long slender pedicels; leaves glabrous or nearly so; Mutomo-Voi-Taveta area 14. *G. nematopus*
- * Flowers either several or on shorter pedicels; leaves glabrous or pubescent 32
- 32. Plants of littoral thicket and dry littoral forest; leaves 6-13 by 3-7cm, with acuminate apex 8. *G. glandulosa*
- * Either plants from inland sites above 450m or leaves 1-5 by 1-6cm with rounded apex 33
- 33. Flowers mauve or purple, several per inflorescence; petals 9-15mm long 18. *G. similis*
- * Flowers white and solitary or if pink to pale lilac and several per inflorescence, then petals 4-8mm long 34

*Note: if flowers white and several together, see 4.

*Grewia*

a(1); b(27); b₁(27); b₂(15); c(21); c₁(21); c₂(22); d(17); d₁(17); d₂(10); d₃(22);
 e(19); e₁(8); e₂(25); e₃(19); e₄(18); e₅(20); e₆(20); e₇(4); f(13); f₁(26);
 f₂(9); f₃(7); f₄(6); f₅(16); f₆(13); f₇(2); f₈(11); f₉(3); f₁₀(23); f₁₂(24); f₁₃(5);

The numbers refer to species number of text.

Grewia ectasicarpa

34. Flowers white, solitary; sepals 9-20mm, petals 6-15mm long 22. *G. tenax*
- * Flowers white or pink, 1-several per inflorescence; sepals 7-12, petals 4-8mm long 21. *G. tembensis*
35. Fruit ellipsoid, 22-35 by 10-18mm; moist forest 2. *G. calymmatosepala*
- * Fruit round or lobed, much smaller 36
36. Fruit unlobed, or two-lobed 37
- * Fruit 3-4-lobed 53
37. Fruit minutely warty (tuberculate), round 38
- * Fruit smooth (or wrinkled when dried), round or lobed 39
38. Stems fluted; rocky bushland, wooded grassland, coastal forest 7. *G. forbesii*
- * Stems smooth; dry bushland 27. *G. villosa*
39. Fruit sandpapery 6. *G. flavescens*
- * Fruit glabrous or hairy, but not sandpapery 40
40. Fruit glabrous 41
- * Fruit (slightly) hairy 43
41. Pedicel long (2-4cm) and slender 14. *G. nematopus*
- * Pedicel short and about 0.5mm thick 42
42. Leaf apex obtuse or rounded; dry bushland 21. *G. tembensis*
- * Leaf apex acute or acuminate; slightly wetter habits 23. *G. trichocarpa*
43. Leaves densely tomentose beneath, white or grey 44
- * Leaves glabrous or slightly hairy beneath 50
44. Fruit lobes 10-16mm across 5. *G. fallax*
- * Fruit lobes usually less than 9mm across 45
45. Peduncle less than 1cm long; leaves 1-4.5 by 0.8-1.7cm; Voi area 24. *G. tristis*
- * Peduncle usually longer, leaves usually wider 46
46. Veins on the lower leaf surface glabrous or nearly so 47
- * Veins on the lower leaf surface as hairy as the blade 49
47. Leaf base subcordate (at least on one side); leaf apex rounded or acute 48
- * Leaf base cuneate or obtuse; leaf apex acute to acuminate 23. *G. trichocarpa*
48. Coastal species, at altitudes 1-500m 16. *G. pliophylla*

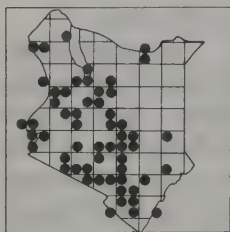
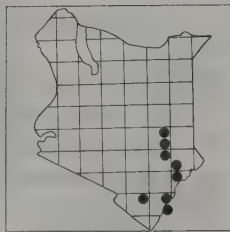
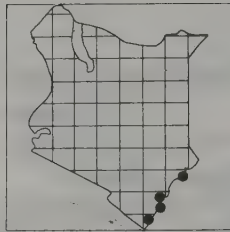
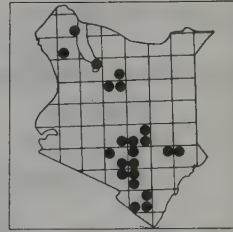
* Inland species, at altitudes 350-1450m

11. *G. micrantha*

49. Leaf margin with very fine teeth 1. *G. bicolor*
- * Leaf margin with distinct teeth 13. *G. mollis*
50. Leaves glabrous (occ. veins hairy) 51
- * Leaves minutely pubescent 12. *G. microcarpa*
51. Coastal species, 1-600m alt.; leaf apex rounded to bluntly acuminate 52
- * Inland species, (40)900-2150m alt.; leaf apex acute to sharply acuminate 23. *G. trichocarpa*
52. Stems round; leaves glabrous or slightly sandpapery 3. *G. densa*
- * Stems angled and fluted; leaves beneath with hairs on the veins 9. *G. holstii*
53. Fruit sandpapery or warty 54
- * Fruit smooth to the touch 55
54. Leaves sandpapery-pubescent, margins glandular 6. *G. flavescens*
- * Leaves pale tomentose beneath, not sandpapery; margins denticulate 17. *G. praecox*
55. Fruits hairy 56
- * Fruits glabrous 60
56. Leaves densely tomentellous beneath 57
- * Leaves glabrous or sparsely hairy 58
57. Leaf apex rounded 20. *G. sulcata*
- * Leaf apex acute to slightly acuminate 19. *G. stuhlmannii*
58. Inland species, above 1000m 18. *G. similis*
- * Coastal species, below 300m 59
59. Fruit lobes 4-6mm across 4. *G. ectasicarpa*
- * Fruit lobes 10-14mm across 8. *G. glandulosa*
60. Leaves on short shoots, densely hairy beneath; fruit lobes 7-11mm across 10. *G. lilacina*
- * Leaves spaced; fruit lobes 3-7mm, or leaves glabrous 61
61. Pedicel long (2-4cm) and slender 14. *G. nematopus*
- * Pedicel shorter and about 0.5-1mm thick 62
62. 21. *G. tembensis* and 22. *G. tenax*, virtually undistinguishable in fruit.

1. *Grewia bicolor* Juss.

Shrub or tree 1-8m; bark dark purple-brown, deeply fissured and peeling. Leaves elliptic or slightly obovate, base unequal, broadly cuneate to subcordate, apex acute or rounded, margins serrulate, 1.5-9.5 by 1-4cm, shortly white-tomentose beneath. Flowers yellow, in

*Grewia bicolor**Grewia densa**Grewia ectasicarpa**Grewia fallax*

few-flowered axillary cymes; sepals yellow, to 14mm, petals 6-9mm long. Fruit orange or redbrown, round, or two-lobed, the lobe(s) to 7 (rarely 11)mm across, sparsely hairy.

K1234567; (1) 300-1800m; I-XII (XI-I)

Dry *Acacia* bushland, bushed grassland or woodland, often on rocky sites. May be locally common.

Mkone, Mfukufuku (SWA), Arobera, Harowessa (BOR), Mulawa (KAM), Setetit (KIP), Powo (LUO), Siteti (MAA, SAM), Haroru (ORM), Sitet (PKT), Tebi, Debhi (SOM), Ekali (TUR). The wood is used in housebuilding and to make bows, arrows, spearshafts, and runigus. The fruit is edible.

Note: *G. bicolor* var. *tephrodermis* (K. Schum.) Burret is most likely a hybrid with *G. mollis*.

2. *Grewia calymmatosepala* K. Schum.

(Climbing) shrub 4-10m. Leaves elliptic or slightly obovate, base rounded (slightly unequal), apex acuminate, margins entire or denticulate, 6-19 by 2.5-7.5cm, sparsely hairy beneath. Flowers white or cream, in several-flowered panicles; sepals 5-6mm long, petals about 1mm. Fruit red, ellipsoid with two pointed ends, 22-35 by 10-18mm.

K7; 50-400m; I-II, VII-VIII

Moist forest (Shimba Hills and Buda).

Msokote (SWA, DIG).

3. *Grewia densa* K. Schum.

Shrub or tree 3-6m (rarely liane to 9m). Leaves slightly obovate, base unequal, rounded or broadly cuneate, apex rounded or obtuse, margin serrate, 2-9 by 1-4cm, glabrous (when mature) except for the veins. Flowers yellow, in few-flowered axillary cymes; sepals 4-7mm, petals 3-4mm long. Fruit yellow, round, unlobed or 2-lobed, the lobes 4-5mm.

K7; 1-600m; VIII-XII *

In riverine bush or open riverine forest; in the coastal strip also in evergreen forest or bushland.

Mkone-Mume (SWA), Fahfah (ILW), Haroru (ORM), Mukolle (PKM), Bebhi (SOM).

4. *Grewia ectasicarpa* S. Moore

Climbing shrub to 3m. Leaves slightly obovate, base cuneate with a few large triangular glands in the lower part of the leaf, apex shortly and bluntly acuminate, margin crenate, 4-9 by 2-5cm, slightly sandpapery above, thinly pubescent beneath; rarely almost glabrous. Flowers yellow or white, in umbelliform axillary or terminal cymes; sepals 12-16mm long, petals 6-7mm long. Fruit 4-(2-6) lobed, thinly stellate-hairy, the lobes 4-6mm.

K7; 1-450m; V, IX-XI *

Forest margins, wooded grassland, *Brachystegia* woodland.

Msokote (SWA), Mkiririmbo (GIR), Mutuva (KAM), Irii-Loldonyo (SAM). The fruit is edible.

5. *Grewia fallax* K. Schum.

Shrub or tree 1.5-6m. Leaves elliptic or obovate, base (slightly) unequal (one half cuneate, the other rounded to cordate), apex rounded to shortly acuminate, margins serrate, 3-13 by 1.5-7cm, whitish-tomentellous beneath. Flowers yellow in few-flowered axillary cymes; sepals 9-16mm, petals 3-5mm long. Fruit orange turning black, 1-2 lobed, the lobes 10-16mm, slightly hairy.

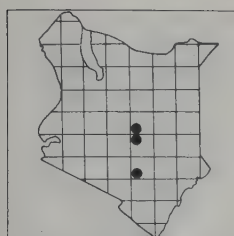
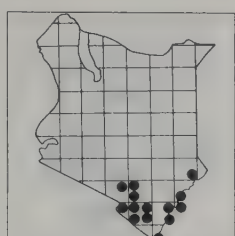
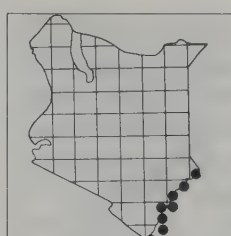
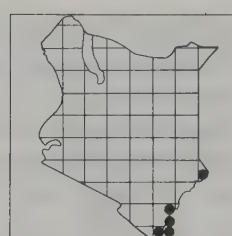
K1247; (50)350-1500m; I, V, VII-VIII, X-XII

Rather dry bushland or bushed grassland, often in thickets in rocky sites near luggas or rivers.

Ogomdi (BOR), Hobhob (REN), Ndoroka (TAI), Epat (TUR). Fruit edible.

6. *Grewia flavescens* Juss.

Shrub 1-3(5)m. Leaves elliptic to slightly obovate, base rounded or subcordate, apex acute or acuminate, margins glandular-serrate, 6-10 by 2.5-5cm, scabridulous-pubescent (esp. below). Flowers yellow, in axil-

*Grewia flavescens**Grewia forbesii**Grewia glandulosa**Grewia holstii*

lary cymes; sepals 12-20mm, petals 6-8mm long. Fruit 2-4-lobed, the lobes round, 7-9mm, hairy.

K124; 300-1050m; VIII *.

Rocky bush/woodland.

Chamurji (BOR).

7. *Grewia forbesii* Mast.

Shrub, small tree or liana 1-5m; stem strongly fluted. Leaves elliptic or obovate, base slightly unequal, rounded or cordate, apex acute, 3.5-12 by 2.5-7cm, sandpapery above, pubescent beneath. Flowers yellow, several per axillary cyme; sepals 14-20mm, petals 9-16mm long. Fruit 1(-4) lobed, 12-16mm, very warty.

K4(6)7; 1-1500m; I-IV, VI-VIII

Coastal forest and bushland/thicket, inland rocky bushland and wooded grassland.

Msokote (SWA), Mbavubavu (DIG), Mubavungombe (GIR, PKM), Mutalenda (KAM), Da'bi (SOM).

8. *Grewia glandulosa* Vahl.

Shrub or tree 1.5-6m (rarely reported as scandent). Leaves ovate, base rounded or subcordate, apex acuminate, margins (glandular-) crenate-serrate, 6-13 by 3-7cm, sparsely pubescent or glabrous. Flowers pink, mauve or purple, in 2-3-flowered axillary or leaf-opposed cymes; sepals 15-25mm, petals 6-10mm long. Fruit 4-lobed, the lobes up to 14mm across, densely hairy.

K7; 1-50m; I-II, IV-X, XII.

Littoral thicket, or bushland close to the sea; also in Diani forest.

Msokote (SWA), Mkowasi (BAJ), Msai (SWA & DIG), Mugandana Murori (GIR), Mwitalenda (KAM).

9. *Grewia holstii* Burret

Shrub or tree 2-5m or liana to 10m; stems 3-4 angled, fluted and grooved, sometimes with spine-like bosses. Leaves elliptic, base rounded or subcordate, apex

obtuse or bluntly acuminate, margins serrate, 3-8 by 1-3cm, almost glabrous but often feeling somewhat sandpapery and quite often with domatia. Flowers yellow, in axillary cymes; sepals 6-12mm, petals 5-7mm long. Fruit not lobed, round, 5-8mm, minutely hairy.

K(1)7; 1-500m; III-IV, VI-IX, XI *

Dry forest (margins), dense bushland.

Msoko (SWA), Mkone (SWA, DIG).

10. *Grewia lilacina* K.Schum.

Shrub 1-3m. Leaves on short shoots, slightly obovate, base narrowly rounded or subcordate, apex rounded, margin crenate-serrate, 2-5.5 by 1-3cm, densely tomentellous beneath (sometimes much lighter than the upper side). Flowers pink-lilac, solitary on the short shoots, often appearing with the young leaves; sepals 12-17mm, petals 8-12mm long. Fruit orange, 3-4-lobed, the lobes 7-11mm across, glabrous.

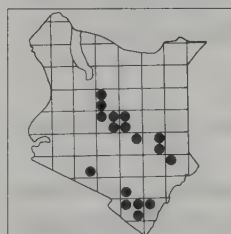
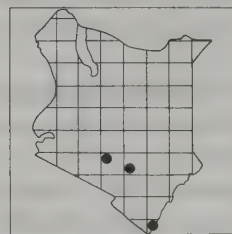
K1467; 100-1200m; II-XI.

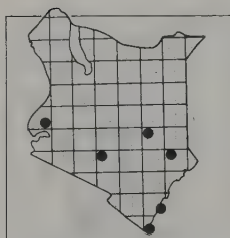
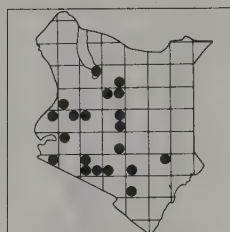
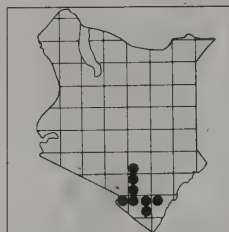
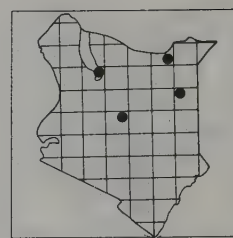
Acacia-Commiphora bushland.

Oyerri (MAA), Oronkio-gala (ORM), Mulanio-Ti-Lehun (REN), Deka-bonati (SOM). Fruit edible.

11. *Grewia micrantha* Boj.

Shrub or tree 3.5-6m. Leaves elliptic, base asymmetrically subcordate, apex acute or rounded, margin serrate, 2-7 by 1.5-4cm, densely whitish-tomentose beneath. Flowers yellow, in axillary few-flowered cymes; sepals 7-8mm, petals 3-4mm long. Fruit

*Grewia lilacina**Grewia micrantha*

*Grewia microcarpa**Grewia mollis**Grewia nematopus**Grewia penicillata*

yellow, 1-2-lobed, the lobes about 7mm, pubescent. K47; 350-1450m; IV *

Riverine thicket (inland) or wooded grassland (coast). A root decoction is used by the Digo against dysentery; they also use a leaf infusion against pneumonia. The wood is used for bows, arrows and rungs.

12. *Grewia microcarpa* K.Schum.

Shrub or tree 6-7m. Leaves ovate or elliptic, base asymmetrically rounded, apex acute, margin serrate, 2-4(6) by 1-2(3)cm, minutely pubescent. Flowers yellow, in few-flowered axillary cymes; sepals 5-6mm, petals 2-3mm long. Fruit yellowish, 1-2-lobed, the lobes 4mm, sparsely hairy to glabrous.

K457; 1-1450m; I, V, XII *

Riverine thicket or coastal bushland.

Msoke, Mkone (SWA, GIR).

13. *Grewia mollis* Juss.

Shrub or tree 1.5-9m; bark thick and flaking, exposing yellow-green undersurface. Leaves elliptic, base asymmetrically cuneate to rounded, apex acute, margin serrate, 4-12 by 2-6cm, densely greyish-tomentellous beneath. Flowers yellow, in axillary cymes; sepals 6-11mm, petals 4-6mm long. Fruit 1-2-lobed, the lobes 5-7mm, puberulous.

K134567; (90)700-1900m; I, III, V, VI-VIII, X, XII *

Wooded grassland, (riverine) thickets. Powo (LUO), Siteti (MAA, SAM), Sidiyot (NAN), Oldebesi-Anuwi (MAA), Apat, Sitet (PKT), Dabach (REN), Debi-ad, Ged-Mured (SOM), Epat (TUR). The wood is used in housebuilding; the fruit is edible.

14. *Grewia nematopus* K.Schum.

[*G. tembensis* Fres. var. *nematopus* (K.Schum.) Burrett]

Shrub 1-3(-4.5)m with virgate branches. Leaves elliptic to slightly obovate, base narrowly obtuse, apex rounded or obtuse, margin serrate, 1.5-4.5 by 1-2.5cm,

glabrous or nearly so. Flowers white tinged pink (the calyx often reddish outside), solitary and axillary on long slender pedicels (2-4cm); sepals 9-15mm, petals 6-12mm long. Fruit 1-4-lobed, the lobes 3-5mm.

K47; 200-900m; II, IV-V, VIII, X-XII (XI)

Acacia-Commiphora bushland, riverine bushland. A near-endemic species. (Faden 69/421 from Kasigau has flowers in threes but still looks like this; in the area S of Kajiado intermediates with *G. tembensis* occur, e.g. Galaty 157).

15. *Grewia penicillata* Chiov.

Shrub 1-2m. Leaves elliptic, base broadly cuneate or rounded, often somewhat asymmetrical, apex acute or rounded, margin serrate, 1-4 by 0.8-3cm, densely grey or yellowish tomentellous beneath. Flowers yellow, in few-flowered axillary cymes; sepals 8-10mm, petals 4-7mm long. Fruit yellow, round, 10-12mm.

K1; 200-1500m; IV, X-XI *

Dry bushland or bushed grassland.

Ohob (SOM). Fruit edible.

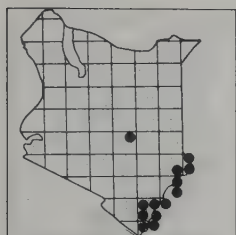
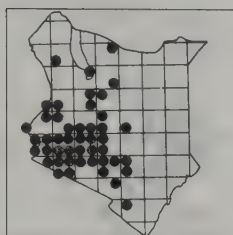
16. *Grewia plagiophylla* K.Schum.

Shrub or tree 2-7.5m; bark grey, fissured. Leaves shiny above, asymmetrical, elliptic or obovate, base very unequal (one side cuneate, the other rounded to cordate), apex rounded, margin serrulate, 2.5-13 by 1-6cm, densely grey-green tomentellous beneath. Flowers yellow, in few-flowered axillary cymes; sepals 8-14mm, petals 3-5mm long. Fruit 1-2-lobed, the lobes 5-7mm, glabrous or hairy.

K7; 1-500m; I-VI, IX-XII (IV)

Littoral thicket, forest margins, dry bushland/woodland/wooded grassland.

Mkone, Mfukufuko (SWA, GIR), Haruru, Shungururu (GAL), Fahfah (ILW), Haroru-hadda (ORM), Mukone (PKM), Debhi (SOM). The wood is hard and strong, and is used to make bows, arrows and rungs. Digo use a root decoction against kidney trouble.

*Grewia plagiophylla**Grewia similis***17. *Grewia praecox* K.Schum.**

Shrub, 2-4.5m. Leaves discolorous, very small when the plant flowers (to 10 by 6mm), the margins crenate with large red glands. Flowers white, solitary; sepals 12-14mm, petals about 4mm long. Fruit (not seen) 4-lobed, warty, hairy.

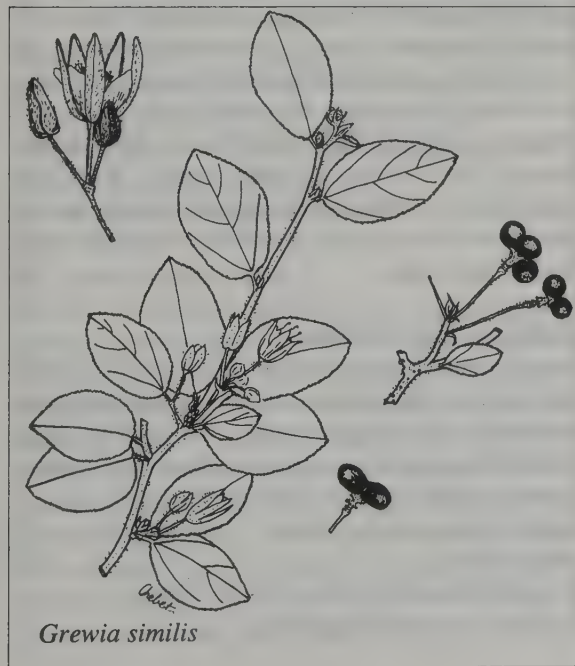
K7; 1-50m; III-IV *

Coastal bushland; quite common in the Tana R. Primate Reserve; also on the Malindi-Garsen road.

Note. S.K.Nganga 65, without locality but probably from Buchuma, is quite likely this species. Since it is in fruit (lobes 5-6mm across) I have no material to compare it with; the margins show the glandular crenations, the leafbase is subcordate, and the apex is acute; leaf size to 40 by 25mm.

18. *Grewia similis* K.Schum.

Shrub or liana 0.5-8m, lianas with woody knobs on

*Grewia similis*

stems. Leaves elliptic or slightly obovate, base narrow and obtuse or rounded to subcordate, apex rounded, obtuse or acute, margin serrate, 1.5-9 by 1-5cm, slightly scabridulous-hairy beneath. Flowers mauve or purple, in several-flowered axillary or terminal cymes; sepals 12-20, petals 9-15mm long. Fruit orange-red, 2-4-lobed, the lobes 5-10mm.

K1234567; 700-2250m; I-XII (II-VI, IX-XI)

Dry evergreen forest, (riverine) thickets, evergreen bushland or -bushed grassland.

Dogonu (BOR), Mutuva (KAM), Mutheregendu (KIK), Sitetit, Chesereput (KIP), Aroya, Pop-Aroya (LUO), Ol-Neligwat (MAA), Chomisiat (NDO), Ng'aligoi (SAM), Mloga Shoshoti (TAI), Tondinwa (TUG), Ekali (TUR). The wood is used for bows and building poles; the fruit is edible.

19. *Grewia stuhlmannii* K.Schum.

(Climbing) shrub 1-5m. Leaves shiny above, obovate, base rounded, apex acute to slightly acuminate, margin serrate, 4-11 by 2-6cm, usually sandpapery above, tomentose or tomentellous beneath. Flowers white, in several-flowered terminal cymes; sepals 12-15mm, petals 6-7mm long. Fruit 3-4-lobed, the lobes 6-10mm, hairy; often with persistent stamens.

K7; 1-300m; I, III, V, VIII-IX, XII *

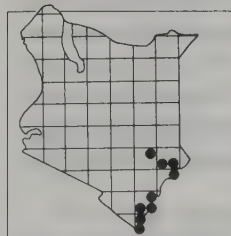
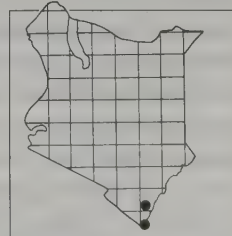
Forest margin, thicket, wood/bushland.

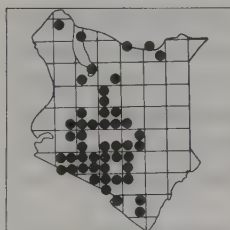
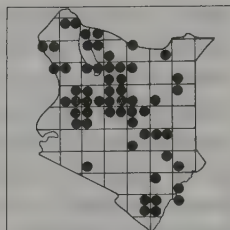
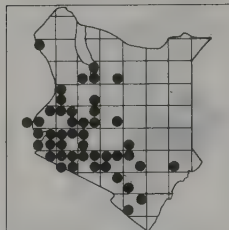
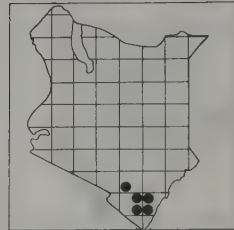
Msokote (SWA), Murori (GIR), Fahfah-gema (ILW), Mutalenda (KAM), Haroru (ORM), Mukolle (PKM), Debhi (SOM).

20. *Grewia sulcata* Mast.

Shrub 2-3m. Leaves broadly elliptic or obovate, base rounded, apex rounded, 3-6 by 2-4cm, densely pubescent beneath. Flowers cream, in several- to many-flowered terminal cymes; sepals 9-11mm, petals 2-5mm long. Fruit 4-lobed with remnants of anthers, the lobes 6-8mm.

K7; 1-350m; VIII *

*Grewia stuhlmannii**Grewia sulcata*

*Grewia tembensis**Grewia tenax**Grewia trichocarpa**Grewia tristis*

Dry forest margins or deciduous bushland.

21. *Grewia tembensis* Fres.

[*G. erythraea* Schweinf., p.p.]

Shrub 0.5-4m. Leaves slightly obovate, elliptic or almost round, base obtuse or rounded (rarely cuneate), apex obtuse or rounded, margins serrate, 0.8-4.5(8) by 0.5-2.5(4)cm, occasionally slightly sandpapery above, sparsely hairy to densely tomentellous beneath. Flowers white, pink or pale lilac (the sepals often brown-purple outside), in 1-several-flowered axillary cymes; sepals 7-12mm, petals 4-8mm long. Fruit orange, 1-4-lobed, the lobes 4-7mm.

K123467; 250-2100m; I-XII (XI)

Acacia-Commiphora bushland; also occasionally in bushed grassland or *Combretum* woodland.

Deka (BOR), Mutuva (KAM), Chesarebut (KIP), Oyiri (MAA), Deka-dubra (ORM), Toronwo (PKT), Dumeg (SOM), Irii (SAM), Murie-bonati (SOM), Mwemba (TAI), Emalaker (TUR). Turkana use a root decoction against cough. The fruit is edible.

Note: I feel the var. *kakothamnus* is spurious, being based on the shape of the leaf apex. Intermediates occur (eg. Hepper & Jaeger 7134). I think this is a nice example of clinal variation, the northern part of the population showing more narrowed apices, the southern part more rounded ones.

22. *Grewia tenax* (Forssk.) Fiori

[*G. erythraea* Schweinf., p.p.]

Shrub 0.5-3(5)m. Leaves round, obovate (occ. wider than long), base rounded, subcordate or broadly cuneate, apex rounded, margins dentate, 1-5 by 1-6cm, slightly sandpapery to almost glabrous. Flowers white, solitary, leaf-opposed or on short-shoots; sepals 9-20mm, petals 6-15mm long. Fruit orange-red, (3)4-lobed, the lobes (3-)5-10mm, glabrous.

K123467; 1-1250m; I-VII, IX-XII (V, XI)

Semi-desert shrub (often along luggas, wells, and

rivers), dry *Acacia* bushland or bushed grassland. Deka (BOR, ILW), Deekaa (GAB), Ilkogoni (NJE), Deka (ORM), Toronwo (PKT), Muluhanyo (REN), Iri, Lairipai (SAM), Damak, Dekha (SOM), Eng'omo (TUR). The wood is used for bows, arrows and rungs; the fruit is edible.

Note: Polhill & Paulo 566 from Kurawa keys out as this species, but the leaves have a different shape. This might represent a new species.

23. *Grewia trichocarpa* A.Rich.

Shrub or tree 1.5-6m; bark silverygrey. Leaves elliptic, base (unequally) obtuse or cuneate, apex acute to slightly acuminate, margin crenate-dentate, 3-11 by 1-4.5cm, almost glabrous to minutely tomentellous (except for the veins) beneath. Flowers yellow, in several-flowered axillary cymes; sepals 6-11mm, petals 3-7mm long. Fruit orange, 1(-2)-lobed, 5-7mm.

K1234567; (40)900-2150m; I-XII (III, X, XII)

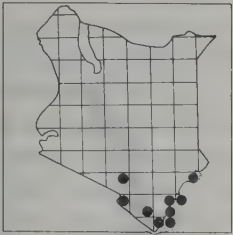
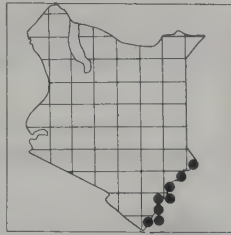
Wooded grassland, (semi-) evergreen bushland or clump thickets, drier forests, riverine woodland; also in secondary bushland in the wooded grassland zone. (H)arorressa (GAB), Sitetit (KIP), Powo (LUO), Olsitet (MAA), Siteti (SAM), Sitiwe (TUG). Used for spearshafts by the Samburu; also used to make bows; stem fibres used for rope; fruit edible; pounded bark used to make soap.

24. *Grewia tristis* K.Schum.

Shrub 1.5-3m. Leaves discolorous, elliptic or slightly obovate, base (unequally) obtuse to subcordate, apex rounded (acute), margin serrulate, 1-4.5 by 0.8-1.7cm, tomentellous above, grey-green tomentellous beneath. Flowers yellow, in several-flowered axillary cymes; sepals 5-8mm, petals 3-5mm. Fruit (orange?) 1-2-lobed, 4-5mm.

K7; 200-550m; IV-V, VII-VIII, XI-XII *

Acacia-Commiphora bushland.

*Grewia truncata**Grewia vauhanii***25. *Grewia truncata* Mast.**

Shrub or tree 1-5m. Leaves obovate, base (unequally) rounded, apex truncate (often with a small acute apex in the middle), margin crenate-dentate, 3.5-13 by 2-8cm, thinly pubescent beneath. Flowers white, in several-flowered leaf-opposed or terminal cymes; sepals 15-25mm, petals 5-6mm long. Fruit 4-lobed, the lobes 7-12mm, tuberculate.

K47; 1-500m (coast) and 900-1000m (Taveta, Kibwezi); I, IV-VII, IX *

Dry (groundwater) forest, coastal bushland and thicket. Mugwale (GIR), Mukone-Moruke (GIR, PKM), Mbavungombe (PKM).

26. *Grewia vauhanii* Exell

Shrub or tree 2-6m. Leaves glossy above, ovate, base rounded or subcordate, apex acuminate, margin entire, 4-11 by 1.7-6.5cm, glabrous except for some hairs at the top of the petiole, which is thickened near the leafblade. Flowers yellow, in few-flowered axillary racemes; sepals 10-14mm, petals 5-8mm long. Fruit brown, not lobed, 7-10mm, thinly puberulous.

K7; 1-50m; I-VI, XI-XII.

Coastal littoral thicket, dry forest margins, secondary bushland; never far from the sea.

Mbwanahaseni, Mukametsaka (GIR).

27. *Grewia villosa* Willd.

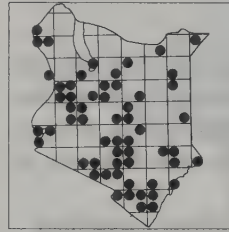
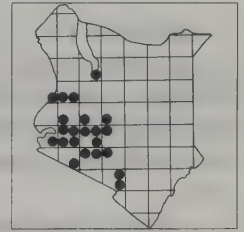
Shrub 1-3.5m, rarely a tree to 4.5m. Leaves round or broadly elliptic, base (sub-)cordate, apex rounded or acute, margin serrate, 2-20 by 1.8-22cm, sandpapery or pubescent above, pubescent to greyish tomentose beneath. Flowers yellowish (sepals and anthers) to reddish (sepals), petals translucent, pink and red, in several- to many-flowered inflorescences (leaf opposed, extra-axillary, or seemingly terminal); sepals 6-9mm, petals 1-2mm (male fl.) or 3-4mm long (female and bisexual fl.). Fruit orange or red, unlobed, 7-15mm, warty, with hairs on the warts.

K1234567; 1-1500m; II-XII (XI)

Acacia-Commiphora bushland; also near Lake Victoria in dry bushland.

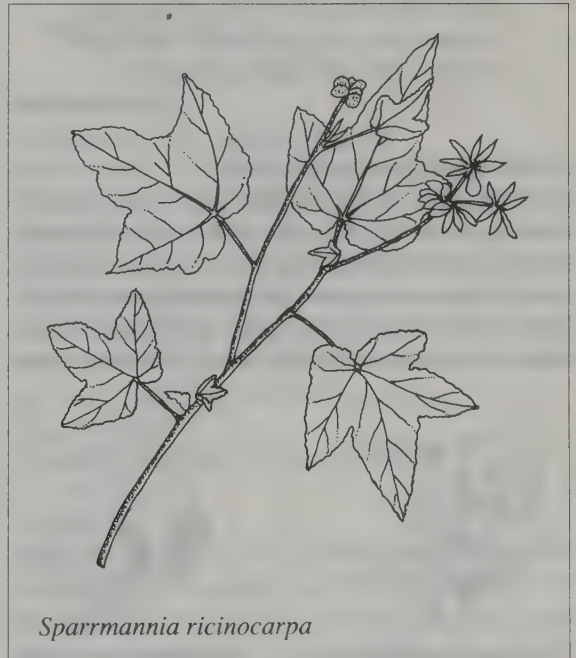
Mukorobasha (BAJ), Morudo, Ogumdi (BOR), Ogomdi (GAB, ORM), Mulawa (KAM), Nre-Powo (LUO), Olmankulai (MAA), Mongurwa (MAR), Mukowo (PKT, TUG), Obepo (REN), Lpupoi (SAM, NJE), Kamasha, Kommasha (SOM), Mshoshote (TAI), Epongai (TUR). Fruit edible; Boran use a leaf/twig decoction against rheuma; Somali use a bark infusion against diarrhoea; the wood is used for building.

Note: in this species the flowers are usually dioecious, but sometimes bisexual.

*Grewia villosa**Sparrmannia ricinocarpa***4. SPARRMANNIA**

Sparrmannia ricinocarpa (Eckl. & Zeyh.) Kuntze

Woody herb, shrub or scrambling shrub 0.5-3m. Older twigs with distinct reticulation. Leaves 3-7-lobed,

*Sparrmannia ricinocarpa*

cordate at the base, 5-7-nerved at the base, 3-13 by 2-12cm, densely pubescent with stellate and/or simple hairs. Flowers pink to mauve, in extra-axillary or leaf-opposed umbels; sepals white or purplish inside, petals 8-14mm long. Fruit brown, ellipsoid, covered in long bristles, 2-3cm long.

K123456; 1550-3300m; I-III, V-XII (VIII)

Forest margins or -clearings, riverine forest, secondary bushland where forest has disappeared; extends into bamboo and Hagenia zone.

Murugangwe (KIK), Meswot (KIP), Olmeswa (MAA). Yields a good fibre, used by the Maasai for making rope.

5. TRIUMFETTA

Leaves often several-nerved from the base with stellate hairs; stipules lateral. Flowers in cymes on spike-like terminal inflorescences, or at the nodes. Stamens on a raised body. Fruit a bristly capsule opening by valves.

1. Petals 3-6mm long; fruit 3-5mm across (incl. bristles) 2

- * Petals 7-15mm long; fruit 10-20mm across

3. *T. tomentosa*

2. Leaves not or hardly lobed; inflorescence long (more than 10cm), leafless; fruit with hairy bristles

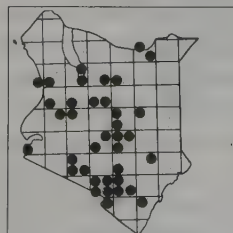
1. *T. flavescens*

- * Leaves often deeply lobed; inflorescence shorter than 5cm or if longer, with some leaves; fruit with glabrous bristles

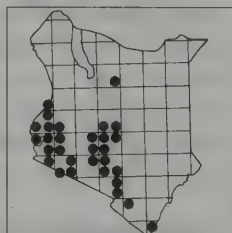
2. *T. rhomboidea*

1. *Triumfetta flavescens* A.Rich.

Shrub 0.5-2m. Older branches with black lines often forming a characteristic reticulation. Leaves broadly ovate (sometimes obscurely 3-lobed), base rounded or cordate, apex acuminate, margins dentate-serrate, 1.5-9 by 1-8cm, densely grey-green pubescent beneath, often somewhat sandpapery above. Flowers yellow,



Triumfetta flavescens



Triumfetta tomentosa



in a long terminal or leaf-opposed spike-like inflorescence (usually branched once) with clusters of cymes; petals 4-6mm long. Fruit ellipsoid, 3-5mm long, with short bristles.

K1234567; 100-1400 (1800)m; I-XII (V)

Dry *Acacia* bushland, bushed grassland; often on overgrazed land or in secondary vegetation. Gurbi-Ola (BOR), Muindanguue (KAM), Olmeswa (MAA), Pkapuyan (PKT), Ekwiyen (TUR).

2. *Triumfetta rhomboidea* Jacq.

Usually an annual but occasionally a semi-woody perennial to 1.5m.

K1234567; 1-1900m; I-XII

A weed of cultivation and of ruderal situations.

Muchokochore (SWA), Tumone (BON), Muungu (KAM), Muringurue (KIK). Bark fibres are used in basketry, and for string.

3. *Triumfetta tomentosa* Boj.

(incl. *T. macrophylla* K.Schum.)

Shrub, sometimes scrambling, 1-4m. Leaves ovate, usually somewhat 3-lobed, base cordate, apex acuminate, margin serrate, 4-16 by 2.5-13cm, densely stellate-pubescent beneath. Flowers (orange-)yellow, in axillary cymes or in terminal panicles with some small

leaves at the nodes; petals 7-15mm long. Fruit brown, often with reddish prickles, round, 10-20mm; prickles hooked at apex.

K3456; (330)1100-2600m; I-XII.

(Moist) forest margins, riverine forest; often in secondary vegetation in forest areas.

Mukiswa, Muindanguue (KAM), Mugio (KIK), Mesiot (KIP), Mughambi, Shintanda-Nguo (LUH, KIS), Ang'orno (LUO), Ormeswa (MAA), Mujijo (MER). The bark fibre is used for rope.

Note. I believe that *T. macrophylla* and *T. pilosa*, at least as far as Kenyan specimens have been named as such, are synonymous with *T. tomentosa*.

130. STERCULIACEAE

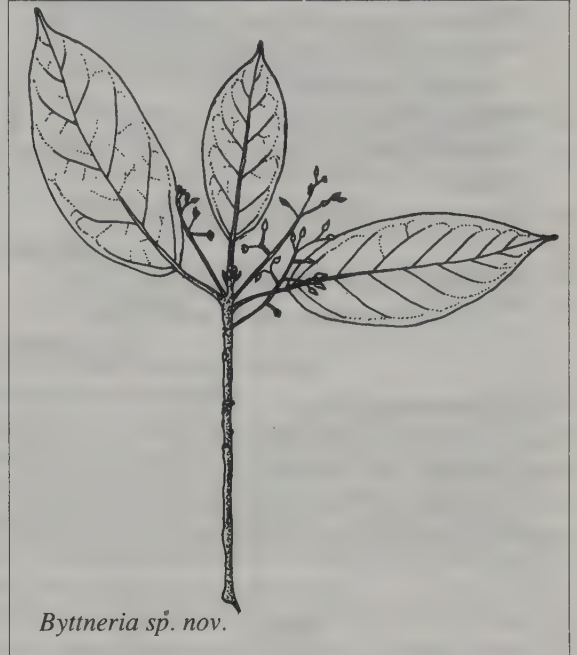
Plants with stellate hairs on leaves and/or twigs and/or inflorescences. Leaves alternate, stipulate. Flowers unisexual or bisexual, 3-6-merous. Petals absent or present. Fruit various.

1. Flowers with sepals and petals; fruits globose or (in *Nesogordonia*) of carpels less than 3cm long 2
- * Flowers with sepals only; fruit of 3-5 free carpels 6
2. Sepals partly connate; fruit spiny 1. *Byttneria*
- * Sepals free; fruit not spiny 3
3. Leaves deeply cordate at base, 3-7-veined from base; petals asymmetric, usually persistent in fruit 3. *Dombeya*
- * Leaves cuneate, rounded or subcordate at base, not 3-7-veined from base; petals symmetric (and only persistent in 4. *Harmsia*) 4
4. Leaves subcordate at base; dry bushland species from NE Kenya 4. *Harmsia*
- * Leaves cuneate or rounded at base; forest species 5
5. Petals less than 2mm long; fruit round 6. *Leptonychia*
- * Petals 6-8mm long; fruit of 4 carpels 7. *Nesogordonia*
6. Mangrove tree; leaves underneath with silvery scales 5. *Heritiera*
- * Species of inland sites; leaves never scaly 7
7. Petiole usually thickened near its apex, the petioles on a single branch often varying in length; leaves with 'normal' venation, cuneate or rounded at base 2. *Cola*
- * Petioles not markedly thickened near apex;

petioles uniform in length; leaves 3-7 veined from the base, with palmate venation (except sometimes in *S. schliebenii*) and usually cordate base 8. *Sterculia*

1. BYTTNERIA

Flowers bisexual; petals present. Stamens 5. Petals with attenuate apex. Fruit globose, spiny.



Byttneria sp. nov. (Faden 74/1275)

Shrub or tree 1.5-5m. Leaves elliptic, base cuneate or rounded, apex acuminate, 6-13.5 by 2-5cm, glabrous except near the base beneath; petiole thickened near the apex. Flowers white, in axillary cymes 4-5cm long; pedicels articulated above the middle; sepals about 4mm, petals 7-8mm long. Fruit 18mm long, with spines 3-4mm long, splitting into 5 valves which are split for 80%, or into 5 mericarps.

K7; 1-100m; ?*

Pangani rocks, Rabai, Mwachi, Mena R.

2. COLA

Plants dioecious (except *C. porphyrantha* which has male and female on the same plant). Leaves with petioles of varying lengths; short near shoot tip, longer lower down; petioles thickened near apex. Petals

absent; sepals (perianth) with a short tube and 4-8 lobes. Anthers on an androphore, in a dense head. Fruit of 1 to several free carpels.

1. ♂ Inland species, found above 1000m

1. *C. greenwayi*

* Coastal species, found below 500m 2

2. Flowers and fruit cauliflorous (on woody bosses on old wood); flower lobes 8-9mm; petiole glabrous 4. *C. porphyrantha*

* Flowers and fruit between or just below the leaves; flower lobes either 2.5-5mm or 14-20mm; petiole hairy at apex 3

3. Perianth (flower) lobes 2.5-5mm long 4

* Perianth lobes 14-20mm long 3. *C. octoloboides*

4. Petioles consistently less than 5mm long

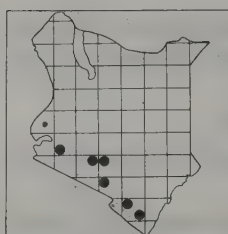
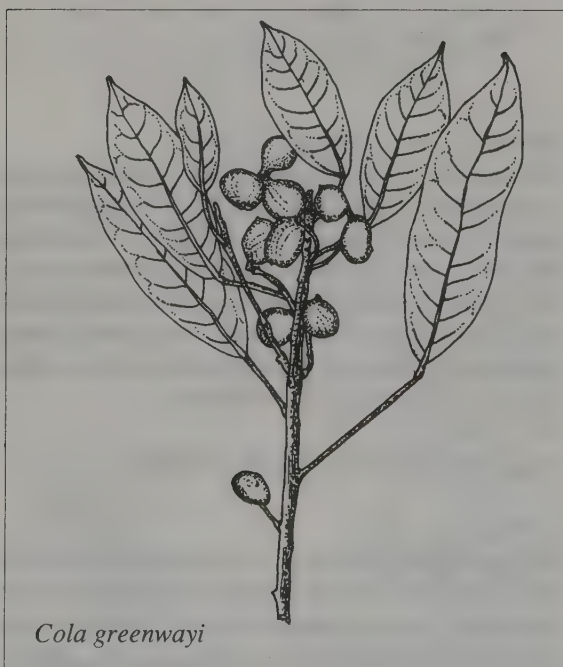
5. *C. uloloma*

* Petioles variable in length, the ones lower down on a branch usually much longer

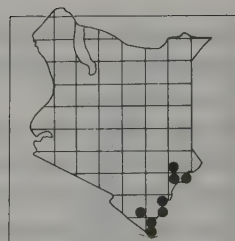
2. *C. minor*

1. *Cola greenwayi* Brenan

Tree 6-30m; trunk sometimes fluted. Leaves (narrowly) elliptic, base cuneate, apex acuminate, 8-18 by 3-7.5cm, glabrous. Flowers brownish-yellow(cream inside?) in axillary fascicles; perianth tube very short,



Cola greenwayi



Cola minor

lobes 4.5-10.5mm long. Fruit of several (1-5) carpels, the carpels ellipsoid, 13-20mm long, densely reddish-tomentellous.

- var. *greenwayi*: K7, Taita Hills and Kasigau; 1250-1750m; XII *

Moist evergreen forest.

- var. *keniensis* Brenan: K45; 1450-2000m; IX, XII * Riverine forest, dry upland evergreen forest.

Also collected in Mt. Kenya forests, "Morigo's alt. 6400ft", a locality which I could not trace. Possibly (White 1155) also, at Irangi For. Sta. at 1980m.

Mwagao, Muthakai (KIK).

2. *Cola minor* Brenan

(incl. *C. clavata* sensu KTS)

Tree 3-12m; bark (?) light greenish. Leaves elliptic to (narrowly) obovate, base cuneate or obtuse, apex shortly and bluntly acuminate, 4-14 by 1-6.5cm, glabrous except for the base of the midrib beneath. Flowers yellow-green with brown hairs, in axillary bunches (sometimes axillary to fallen leaves!); perianth tube very short, lobes 2.5-5mm long. Fruit of 1-several carpels, the carpels ellipsoid, 10-13mm long on a short stipe, densely rusty-tomentellous.

K7; 1-800m; I, IV, VIII-IX *

Littoral thicket, evergreen forest, riverine forest along the Tana.

Chitsambawe, Kipanderua (DIG).

Note. The difference between *C. minor* and *C. clavata* (most likely a misapplied name, see Fl. Zambesiaca 1, 2: 558) are based on the number and size of the petals, the hairyness of young twigs, the size of leaf and petiole, the hairyness of the ovary and the length of androphore and style. Intermediates for most of these characters can be found (e.g. in Bally 13831 with 4-5 lobes of about 5mm long, petals glabrous inside, ovary tomentose; or Luganda 1357, petal lobes 5-6) and so I have united these taxa. However, Q. Luke and S.A. Robertson have shown me that the taxa can be distin-

guished in the field, so this is probably not the final solution.

3. *Cola octoloboides* Brenan ENDANGERED

Shrub or tree 3-4m. Leaves elliptic or obovate, base obtuse or rounded, apex short-acuminate, 5-21 by 2.5-8.5cm, glabrous except for the base of the midrib beneath. Flowers yellow to chocolate-brown, solitary or few, sessile and axillary; perianth tube to 7mm, lobes 14-20mm long. Mature fruit unknown.

K7; 1-450m; XII *

In shady crevices or forest (endemic to Cha Simba, Gongoni, Muhaka and Dzombo).

4. *Cola porphyrantha* Brenan

VULNERABLE, ?ENDANGERED

Tree 7-20m. Leaves obovate, base cuneate or rounded, apex acuminate, 8-25 by 2.5-10cm, glabrous. Flowers pinkish purple, in fascicles on woody bosses on old wood (trunk); perianth tube to 3mm, lobes 8-9mm long. Fruit (?reddish) carpels ovoid, 2-3cm long, puberulous.

K7; 80-250m; XI * Endemic to Kenya.

Evergreen forest; known from Pangani and Longo Magandi forests.

5. *Cola uloloma* Brenan

VULNERABLE, ?ENDANGERED

Tree to 5m. Leaves with short petiole, elliptic, base cuneate, apex acuminate, 4-14 by 1.5-5cm, glabrous except for the top of the petiole. Flowers white or yellow, with an opaque fringe near the apex, in fascicles; perianth tube short, lobes 3-4mm long. Fruit unknown.

K7; 30-500m; VII *

Forest; collected at Pangani, Buda, Muhaka, Marenji, Gongoni and Mangea.

3. DOMBEYA

Leaves usually deeply cordate at base, often with overlapping basal lobes; 3-7 veined from the base; often with mixed stellate and simple hairs. Flowers with reflexed sepals; petals oblique, asymmetric, persistent. Fruit round, hairy, quite small, hidden within the persistent flower.

1. Leaf apex acuminate (*D. kirkii* sometimes has obtuse leaves); flowers and leaves together 2

* Leaf apex rounded; flowers often appearing

before the leaves

4. *D. rotundifolia*

2. Coastal strip species at altitudes below 400m

5. *D. taylorii*

* Inland species; alt. above 600m **3**

3. Stigmas 3; sepals 3-7mm long **4**

* Stigmas 5; sepals 8-20mm long **5**

4. Leaves 3-9 by 2-9cm, often somewhat sandpappy above, thinly pubescent beneath; petals 4-10mm long **2. *D. kirkii***

* Leaves 9-14 by 5-7cm, thinly pubescent above, densely tomentellous beneath; petals 9-14mm long **3. *D. quinqueseta***

5. Shrub or tree, 1-6m tall, in forest undergrowth or more open vegetation. Flowers in a single umbel on an unbranched stalk

1. *D. burgessiae*

* Forest tree 6-24m tall. Flowers in branched inflorescences **6. *D. torrida***

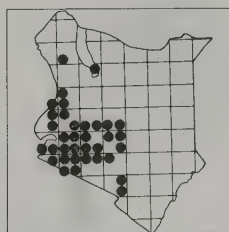
1. *Dombeya burgessiae* Gerrard

(incl. *D. dawei* Sprague)

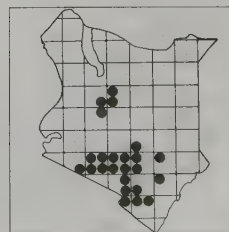
Shrub or tree 1-6m. Leaves broadly ovate (occ. 3-lobed), base deeply cordate, apex acuminate, margin crenate-dentate, 4-17 by 3-13cm, densely (less often sparsely) pubescent on both sides. Flowers white or pink, in long-stalked umbels; petals 14-24mm long. Fruit round, about 1cm, very hairy.

K123456; 1200-2400 (3000)m; I-XII (I, V-VI, VIII) Rather open forest (esp. common in forest around Nairobi), riverine vegetation (forest/woodland/thickets), semi-evergreen bushland on rocky sites, wooded grassland.

Mukeu (KIK), Silibwet (KIP), Muvau, Mutoo (KAM), Mukusa (LUH), Owich (LUO), Olsbukioi (MAA), Monde (MER), Kilipchet (NAN), Ilporowai (SAM), Epongoi (TUR), Mongusu (WAT). The bark fibre is used to make rope; the wood is used for bows and building poles; twigs are used as firesticks; parts are used in cough medicine.



Dombeya burgessiae



Dombeya kirkii

2. *Dombeya kirkii* Mast.

[incl. *D. gilgiana* K.Schum., *D. gillettii* Gilli = *D. sp.1* of KTS, *D. mukole* Sprague, *S. umbraculifera* K.Schum., *D. sp.2* of KTS]

Shrub or tree 1.5-7.5m. Leaves broadly ovate, base cordate, apex obtuse to acuminate, margin serrate, 3-9 by 2-9cm, often somewhat sandpapery above, thinly pubescent beneath. Flowers creamy white, in axillary panicles; petals 4-10mm long. Fruit round, hairy.

K13467; 600-2100m; I-VIII, X (V-VI)

Riverine vegetation (often in rocky sites) or bushland in rocky/lava sites; occasionally in dry forest margins. Sililach (BOR), Mukeu, Mutherigende (KIK), Selebwet (KIP), Lugusu, Odhidho (LUO), Olawuo (MAA), Waru (TAI), Muvau, Kivau (KAM). The Maasai make bows from the stems. Wood used in housebuilding.

3. *Dombeya quinqueseta* (Del.) Exell

Tree 4-6m. Bark corky, fissured (after fires?). Leaves broadly ovate, base deeply cordate (overlapping), apex acuminate, margin crenate-dentate, 8-14(18) by 8-13cm, thinly pubescent above, tomentellous beneath. Flowers white, in corymbose panicles on short shoots near tip of leafless branches; petals 9-14mm long. Fruit round, hairy.

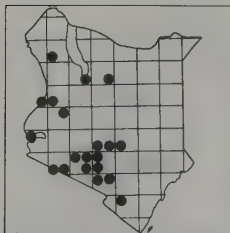
K3, collected twice at Kipkarren and once at Sirisia in *Combretum* wooded grassland at 1650-1750m; I-III *

4. *Dombeya rotundifolia* (Hochst.) Planch.

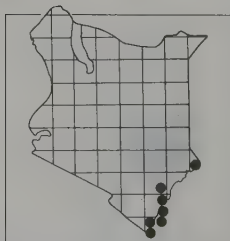
(Shrub or) tree 3-9m; bark rough, corky; often flowering when leafless. Leaves broadly ovate or round, base deeply cordate, apex rounded (rarely acute), margins dentate or subentire, 3-18 by 3-19cm, sandpapery above, pubescent beneath. Flowers white or pink, in axillary panicles; petals 6-13mm long. Fruit rounded, hairy.

K1234567; 900-2250m; I-III, VII-XII (VIII-X)

Wooded grassland.



Dombeya rotundifolia



Dombeya taylorii

Mtorobwe (SWA), Mutoo (KAM), Mutherigende (KIK), Olawuo (MAA), Mugeriswa (PKT), Mogonja, Mogorusta (MAR), Borowa (SEB), Ndowa (TAI), Porowet (TUG), Ebolis (TUR). Maasai make bows and tool handles from the branches; the bark yields a fibre.

5. *Dombeya taylorii* Bak.f.

(*D. praetermissa* Dunkley)

Shrub or tree 1.5-6(10.5?)m. Leaves broadly elliptic, round or obovate, base (sub-)cordate, apex acute, margin crenate-serrate, 3-13 by 2-12.5cm, usually somewhat sandpapery above, (thinly) pubescent beneath. Flowers white, in axillary panicles; petals 4-9mm long. Fruit round, hairy (only young ones seen).

K7; 1-400m; VII-IX *

Forest margin, wooded grassland, secondary bushland.

Mbwale (SWA, DIG), Merfured, Milanje (BON), Kidabita (TAI). The wood is used for bows, and the bark yields a good fibre.

Note.- this species might be very close to *D. kirkii*. Two specimens (T.Adamson 60, M.Abdullah 3848) from Malindi and Witu, are described as trees 9-10.5m high; the leaves are almost glabrous. I believe they are a form of *D. taylorii*.



Dombeya torrida

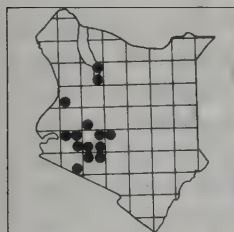
6. *Dombeya torrida* (J.F.Gmel.) P.Bamps ssp. *torrida* (*D. goetzenii* K.Schum., *D. faucicola* K.Schum.)

Tree 6-24m. Leaves broadly ovate, base deeply cordate, apex acuminate, margin serrate to entire, 4-25 by 3-15cm, densely pubescent, especially on the reddish veins. Flowers white, red at the base inside, in umbels with branched stalks; petals 11-21mm long. Fruit round, hairy.

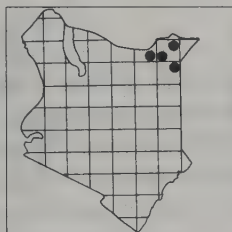
K13456; 1850-2700m; VI-XI (X)

Forest; often in *Podocarpus* or *Hagenia* forests.

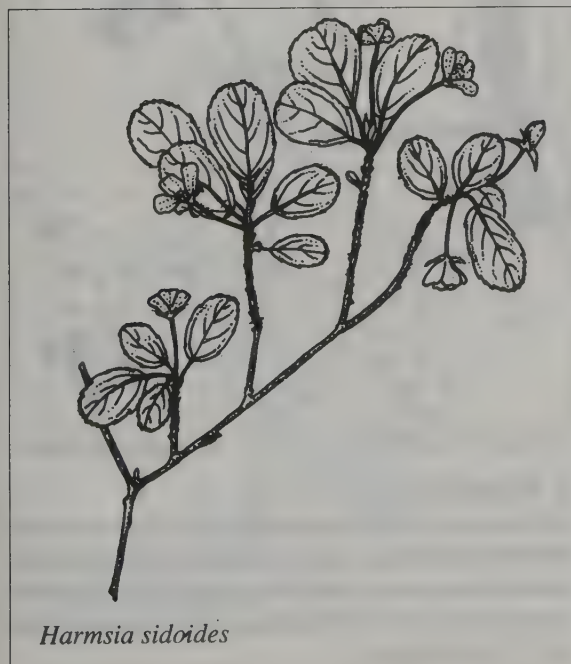
Mukeu (TRADE), Boloet, Silip (ELG), Mueku (KIK), Silibwet (KIP), Ol-subukiai-Orok (MAA), Borowa (MAR), Mukeu (MER), Sibukuet, Silipchet (NAN), Il Porowai (SAM), Boroa (TUG). Wood is used for building, but is not durable in the ground; bark fibres used to make rope.



Dombeya torrida



Harmsia sidoides



Harmsia sidoides

4. HARMSIA

Harmsia sidoides K.Schum.

Shrub 1-2m. Leaves slightly obovate, base subcordate, apex rounded, margin dentate-serrate, 1.2-4.6 by 0.7-2.4cm, tomentellous. Flowers yellow, few per axillary raceme; petals 6-7mm long, persistent around the small, spiny, hairy capsule. Fruit spiny.

K1; 450-850m; I, IV-V *

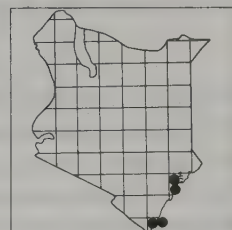
Acacia-Commiphora bushland over limestone.

Gurbi (BOR), Nakvilla (SOM).

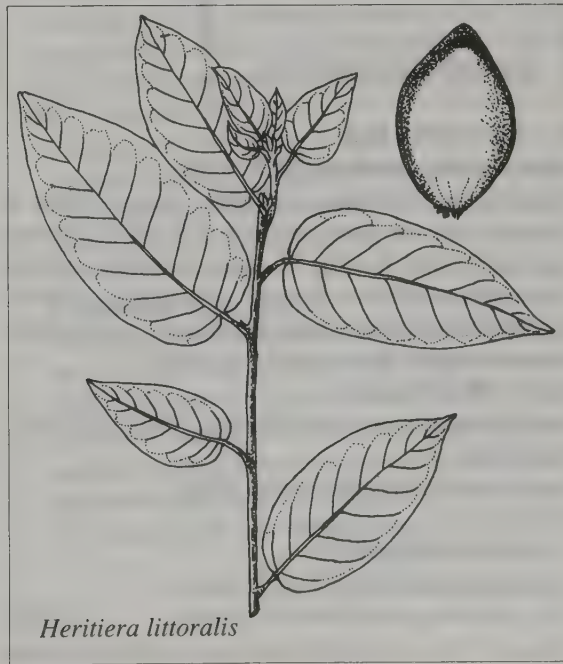
5. HERITIERA

Heritiera littoralis Ait.

Tree to 21m, evergreen, with thin buttresses; bark pale grey. Leaves elliptic or slightly ovate, base rounded or obtuse, apex obtuse to shortly acuminate, 6.5-20 by 3-12cm, underneath covered by silvery scales with a number of redbrown scales admixed. Flowers dioecious, yellow-green, in axillary panicles to 12cm



Heritiera littoralis



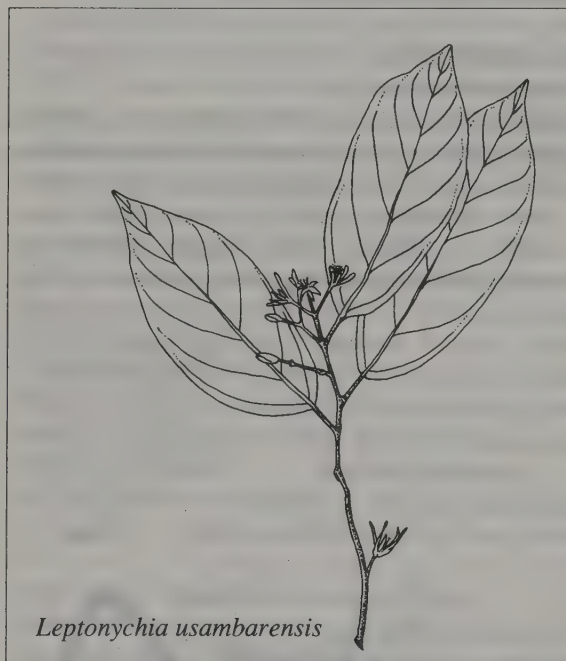
Heritiera littoralis

long; petals absent, calyx 5-6mm long and lobed for one-third. Fruit shiny brown, with 1-4 carpels, each 6-8 by 3-4.5cm, obliquely ovoid and keeled.

K7; near sealevel; VIII-IX *

On the landward side of mangrove swamps, near inflow of fresh water.

Msikundazi, Mkokoshi (SWA). The timber is used for dhow masts; the bark has a high tannin content.



6. LEPTONYCHIA

Leptonychia usambarensis K.Schum.

Shrub or tree 3.5-12m, evergreen. Leaves elliptic to slightly obovate, base rounded or broadly cuneate, apex acuminate, 6-18 by 2.5-9cm, glabrous except for the very base beneath. Flowers white fading to yellow, few in axillary cymes; petals about 2mm, much shorter than the sepals. Fruit round, 10-14mm.

K47; 350-1850m; III*

Moist forest; known from Shimba Hills, Taita Hills, and Nyeri.

Msalakuse (DIG), Mukondwe (KIK).

7. NESOGORDONIA

Nesogordonia holtzii (Engl.) Capuron

[*N. parvifolia* (M.B. Moss) Capuron]

RARE

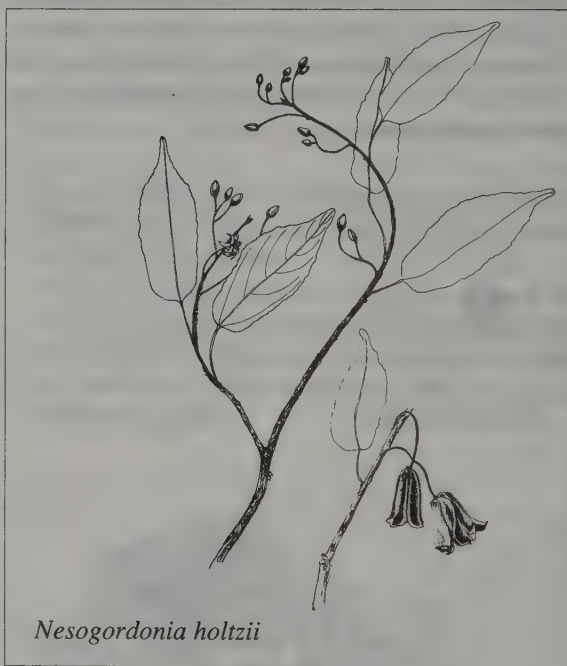
Tree 4.5-30m with slight buttresses (in older trees) and

flaking brown bark. Leaves elliptic, base rounded or broadly cuneate, apex shortly and bluntly acuminate, margin undulate to crenate, 3-8 by 1.3-4cm, glabrous except for the vein-axils beneath. Flowers white or cream, few in axillary cymes; petals 6-8mm long. Fruit of four 2-lobed carpels, 1.5-3cm long.

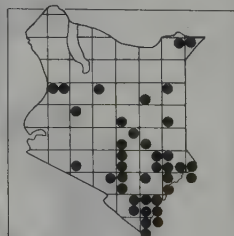
K7; 1-500m; VI, VIII-IX *

Forest.

Mrunza, Muheru (SWA), Mururokarachi (BON), Papan (SAN). Timber hard, heavy, not durable, used in housebuilding.



Nesogordonia holtzii



Sterculia africana

8. STERCULIA

Inflorescence often appearing with or before leaves. Flowers unisexual. Calyx 4-6-lobed. Petals absent. Anthers in a dense group on a single (united) stalk or androphore. Ovary with peltate or lobed stigma. Fruit of 3-5 free carpels.

1. Dry bushland species; leaves more or less pubescent, rarely glabrous; flowers yellow-green with red streaks 2
- * Forest species; Leaves glabrous or sparsely hairy; flowers of one colour, either yellow-green or red, but not streaked 3
2. Fruit carpels more than 1.5cm wide when still closed 1. *S. africana*
- * Fruit carpels less than 1cm wide when still closed 5. *S. stenocarpa*
3. Calyx 9-13mm long, yellow-green; leaves glabrous, lobed 2. *S. appendiculata*
- * Calyx 4-5mm long, reddish; leaves sparsely hairy beneath, entire 4
4. Western Kenya; veins from base 7; flowers when leafy 3. *S. dawei*
- * Coastal Kenya; veins from base 5; flowers when leafless 4. *S. schliebenii*

1. *Sterculia africana* (Lour.) Fiori

(incl. *S. rhynchocarpa* sensu KTS)

Shrub or tree 0.5-10.5m. Bark grey or liver red, smooth, flaking to show yellow-green underbark. Leaves spaced on young shoots, or in bunches on short shoots from older wood; broadly ovate, almost entire or 3-5-lobed, base cordate, apex obtuse to acute, 3-13

by 3-13cm, thinly to densely pubescent. Flowers appearing with or before the young leaves, in clustered terminal panicles; calyx 6-12mm long, lobed to about halfway. Fruit with 3-5 follicles, (narrowly) ellipsoid and beaked at apex, opening widely; 4-10cm long, warty or smooth.

K123467; 1-1000m; I-XI (VIII-X)

Dry *Acacia* bushland or bushed grassland.

Mgoza, Ngozo (SWA), Darab (BON), Mugoza (DIG), K'arrari (GAB), Moria (GIR), Qararhi (ILW), Muusya (KAM), Olkharasha (MAA), Kharrari, Kharandri (ORM), Karari (SAN), Kharanre (SOM), Moja (TAI), Etete (TUR). The bark yields a fibre used to make string.

Note. I am unable to distinguish material identified as *S. rhynchocarpa*. The original descriptions are very close, and characters which have been used to distinguish the species up to now (petiole length/hairiness, leaf apex, fruit wartiness or relative beak size) show continuous variation. I have not seen the type of *S. rhynchocarpa* (from Pare Mts.) and so I cannot decide upon the status of the name; but all material from Kenya which has been called *S. rhynchocarpa* up to now is *S. africana*.

2. *Sterculia appendiculata* K.Schum. (map p.168)

Tree 12-30m with long straight bole and buttresses; bark smooth, yellow-white. Leaves 5-7-lobed, ovate, base cordate, apex & lobes acuminate, 8-24 by 8-18cm, glabrous when mature. Flowers yellow-green, in hanging (sub) terminal racemes; calyx 9-13mm long, lobed for about half. Fruit with 4-5 follicles, broadly ellipsoid with a short beak, 5-7cm long.

K7; 1-400m; VII-VIII *

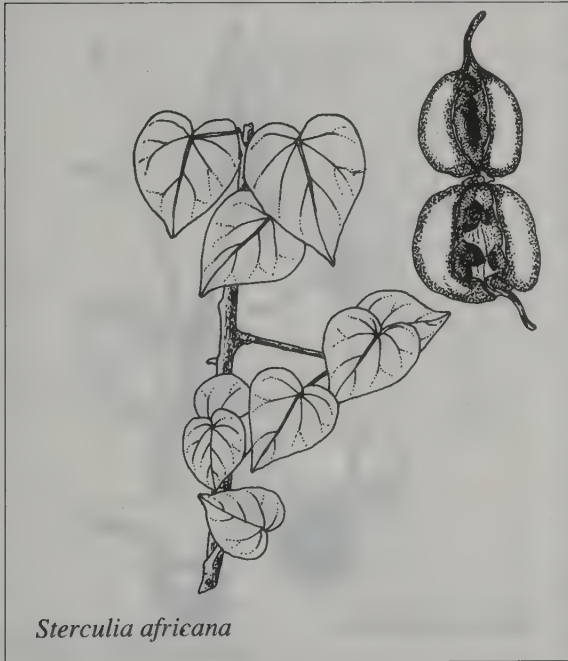
(Riverine) forest.

Mgude (STAND), Mfunu, Msefu (SWA), Mufuno (ILW), Mafuno (ORM), Mfunu (PKM), Munyangatta (SOM). Timber soft, white.

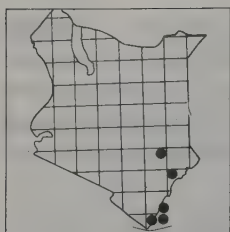
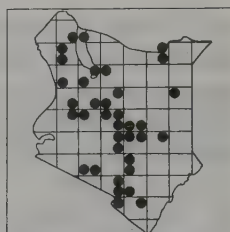
3. *Sterculia dawei* Sprague

Tree 9-18m, with buttresses. Leaves unlobed, ovate-elliptic, base cordate, apex rounded (sometimes with a small acumen), 9-18 by 6-15cm, slightly hairy beneath. Flowers green outside, purplered inside, in long panicles; calyx 4-5mm long, lobed for one-third. Fruit red, broadly ellipsoid with a beak, 4.5-8cm long.

K5; collected once at Marach, about 1450m; in forest?



Sterculia africana

*Sterculia appendiculata**Sterculia stenocarpa***4. *Sterculia schliebenii* Mildbr.**

Tree to 20m; bark smooth, grey. Leaves entire, slightly obovate, base rounded or subcordate, apex shortly acuminate, 5-13.5 by 4-7cm, sparsely hairy. Flowers reddish, in (sub-)terminal panicles; calyx 4-5mm long, lobed for about half. Fruit with 3(-5?) follicles, each ellipsoid, slightly beaked, 8 by 2cm, short-pubescent. K7; 50-450m; IV, XI-XII *

Moist forest (Shimba Hills, Marenji, Pangani, Kambe Kaya).

5. *Sterculia stenocarpa* H.Winkler

(incl. *S.sp.* of KTS)

Shrub or tree 2-12m, with smooth bark (reddish purple or grey) flaking or peeling to show a pale green or grey underbark; trunk sometimes swollen. Leaves clustered on short shoots, or spaced on young shoots; broadly ovate or almost round, 3-5-lobed (rarely entire), base cordate, apex rounded to acute, 1.5-15 by 1.5-12cm, densely pubescent. Flowers usually appearing before the leaves, yellow-green with reddish streaks, in condensed cymes on short shoots; calyx 7-13mm long, lobed for about two-thirds. Fruit grey-green, of 4-5 follicles, each narrowly subcylindric, beaked, 5-11cm long and usually less than 1cm across before opening, densely pubescent.

K123467; 250-1350m; I, III-X

Acacia bushland, often near or rocky outcrops.

Muusya (KAM), Kwareu (EMB), Lilwo (PKT), Ikalaasia (SAM), Gagari (SOM), Mokoiwo (TUG), Etetet (TUR). The bark is used to make rope.

Note. This might well be only a variety of *S. africana*; I am unable to distinguish any separating characters except for fruit characters. The distribution maps have to be viewed with this in mind!

131. BOMBACACEAE

Leaves alternate, digitate, with deciduous stipules. Flowers large, in fascicles or solitary; stamens many. Fruit with woolly or mealy endocarp, many-seeded.

1. Trunk very wide; flowers hanging on 7.5-40cm long pedicel; fruit indehiscent, with mealy pulp **1. *Adansonia***

- * Trunk long and slender; flowers erect on 0.6-2.5cm long pedicel; fruit opening with valves, with woolly hairs inside **2. *Bombax***

1. ADANSONIA***Adansonia digitata* L.**

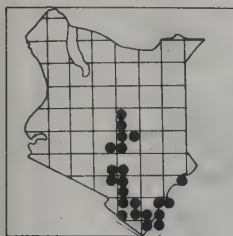
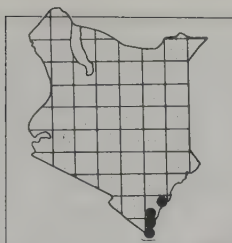
Tree to 18m with enormously wide trunk; bark smooth, grey or reddish brown. Leaves digitate, with (3) 5-7 leaflets, stellate-hairy when young but soon glabrous; leaflets elliptic, 5-17 by 2-7cm. Flowers white, solitary; petals 3-7.5cm long. Fruit cylindrical, to 35 by 13cm.

K467; 1-1000m; III-V, IX-XI

Coastal or inland bush- or woodland. Often left standing when land is cleared.

Baobab (STAND), Mbuyu (SWA), Jah (BON), Kiamba, Muamba (KAM), Ol-Imisera (MAA), Yak (ORM, SOM). Inside of fruit and leaves edible; bark used for cordage; roots produce a dye. Many other uses are documented from outside Kenya.

*Adansonia digitata*

*Adansonia digitata**Bombax rhodognaphalon*

2. BOMBAX

***Bombax rhodognaphalon* K.Schum.**

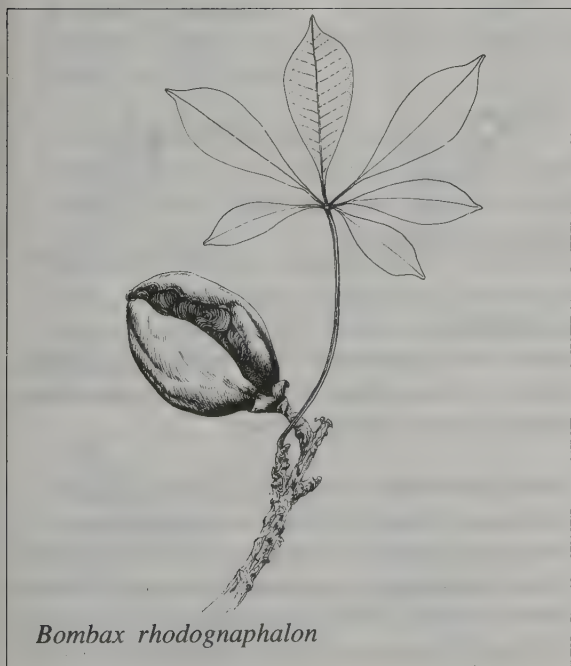
(*Rhodognaphalon schumannianum* A. Robyns)

Tree to 36m with long bole and smooth, yellow-green bark (in older trees sometimes grey and scaly). Leaves digitate, with 3-8 leaflets, usually glabrous; leaflets elliptic, 3-14 by 2-5.5cm. Flowers red, yellow or white, solitary or in fascicles of up to 5 flowers; petals 5-11cm long. Fruit ellipsoid, 5-13 by 2.5-4.5cm.

K7; 1-350m; III, X *

Evergreen forest (margins, remnants); coastal bush-land.

East African *Bombax* (TRADE), Msufi-Mwitu (SWA), Mware (GIR). A useful timber; seed floss used as kapok; bark yields a red dye.

*Bombax rhodognaphalon*

132. MALVACEAE

Stellate hairs usually present. Stipules usually present. Epicalyx often present; petals 5; stamens united in a tube around the style. Fruit a capsule, or composed of follicles.

1. Leaves covered with minute scales

6. *Thespesia*

- * Leaves stellate-hairy or glabrous 2
- 2. Leaf margins toothed 3
- * Leaf margins entire, even in lobed leaves 5
- 3. Leaf apex acuminate; epicalyx absent

1. *Abutilon*

- * Leaf apex acute; epicalyx present 4
- 4. Fruit a dehiscent capsule; petals 30-70mm long

4. *Hibiscus*

- * Fruit consisting of 5 carpels; petals 14-25mm long 5. *Pavonia*
- 5. Inland tree, found above 800m 2. *Azanza*
- * Coastal shrubs or trees, found below 500m 6
- 6. Climbing shrub; epicalyx of 3 lobed bracts

3. *Gossypioides*

- * Shrub or tree; epicalyx of 5-20 entire bracts

4. *Hibiscus*

A recent find from the Tana R. Delta is *Abelmoschus ficulneus* (L.) Wight & Arn., a wild relative of the okra with a laterally splitting calyx.

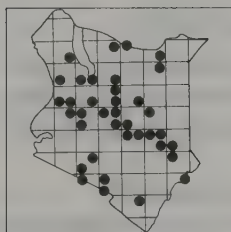
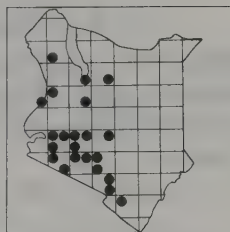
1. ABUTILON

Plants with stellate hairs. Flowers usually axillary and solitary, but sometimes apparently paniculate (through suppression of leaves). Epicalyx absent; calyx with a tube and 5 lobes. Fruit with many mericarps in a circle around a torus, joined.

1. Young parts sticky-glandular; flowers yellow, with a red or purple centre 1. *A. hirtum*
- * Young parts not sticky-glandular 2
2. Flowers mauve; mericarps 12-25, rounded 2. *A. longicuspe*
- * Flowers yellow; mericarps 25-40, acuminate 3. *A. mauritanicum*

1. *Abutilon hirtum* (Lam.) Sweet

Woody herb or shrub 1-2m; with glandular hairs on young branches. Leaves (broadly) ovate, base cordate, apex acuminate, margin crenate-serrate, 2-16 by 1-14cm, stellate-pubescent, somewhat sandpapery. Flowers yellow or orange, with purple or crimson centre, solitary and axillary; petals 15-22mm long.

*Abutilon hirtum**Abutilon longicuspe*

Fruit of 20-30 mericarps.

K123467; 1-1350(?1800)m; I-XII (VI)

Dry bushland, usually near luggas or riverine; also on black cotton soil, and a weed of irrigation schemes. Matawi (GAB), Olorerirepi (MAA), Kapiyan (PKT), Sulube (SAM), Etoo, Asrilipog, Ekwangat (TUR). The stem is used to make string.

2. *Abutilon longicuspe* A. Rich.

Shrub 1.5-5m. Leaves broadly ovate, base cordate, apex acuminate, margin crenate-serrate, up to 20 by 18cm, stellate-velvety. Flowers mauve, with a darker centre, axillary, but appearing as if in terminal panicles; petals 10-14mm long. Fruit of 12-25 mericarps. K123467; 1500-3000m; I-III, VI-XII(IX)

In forest margins or -regrowth, also in groundwater/riverine woodland.

Mondwe, Mwondwe (KIK), Loldongoiyet (NDO, KIP), Omorovianda (KIS), Osupikioi-oibor (MAA), Cheptonge (PKT), Mukundkunda (TAI), Ekwanga (TUR). The stem is used to make string and withies. Note: In the East African Herbarium there are two taxa marked "sp. aff. *longicuspe*" occurring in the same habitat as that species. Taxon A(=*A. cecili* N.E.Br.) has a larger, hairy calyx and angular (not rounded) mericarps; taxon B has very small fruits and clear venation. This information comes from a manuscript by Miss C.H.S. Kabuye.

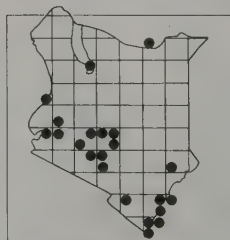
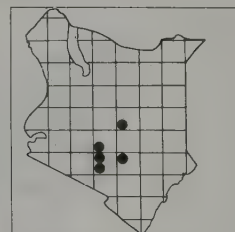
3. *Abutilon mauritianum* (Jacq.) Medic. sensu lato
Woody herb or shrub 0.5-2.5m. Leaves broadly ovate, base cordate, apex acuminate, margin serrate-crenate, up to 18 by 16cm, grey-green velvety beneath. Flowers yellow, solitary and axillary; petals 14-33mm long. Fruit of 25-40 mericarps.

K13457; 1-2050m; I, IV-XII (VIII-IX)

Forest margins, wooded or bushed grassland, secondary bushland, ruderal sites; on the coast in bushland or thicket on coral.

*Abutilon mauritianum*

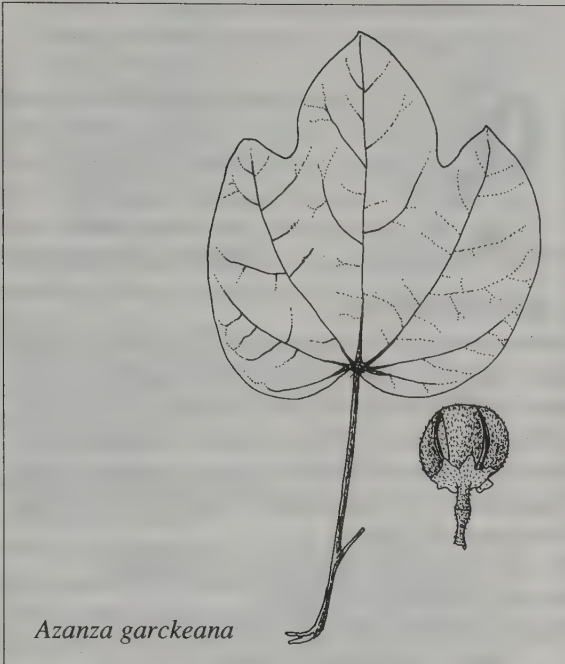
Maumanda (SWA), Chibangula mavi (DIG), Mukeu (KIK), Jeptula (MAR), Malasa (PKM). A leaf infusion is used against dysentery by the Digo; leaves are used as toilet paper for babies.

*Abutilon mauritianum**Azanza garckeana*

2. AZANZA

Leaves with stellate hairs. Flowers solitary, axillary; epicalyx present, fused with the calyx, almost non-lobed. Fruit a 5-valved capsule.

***Azanza garckeana* (F. Hoffm.) Excell & Hillcoat**
Tree (rarely a shrub) 2.5-9m. Leaves palmately 3-5-lobed, base cordate, 5-7-nerved, up to 20 by 20cm, stellate-tomentose or -pubescent beneath. Flowers yellow or mauve, with a red or purple centre; petals 5-6cm long. Fruit red, round to broadly ellipsoid, 3-4cm



Azanza garckeana



Gossypioides kirkii

long, densely hairy.

K4; 900-1500m; III-IV, IX *

Wooded (*Combretum*) grassland.

Mutoo (KAM). The fruit exudate is edible.

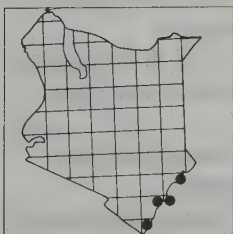
3. GOSSYPIOIDES

Epicalyx present, large, consisting of 3 lobed bracts. Fruit a 3-valved capsule.

Gossypioides kirkii (Mast.) J.B.Hutch.

Climbing shrub, 1-2.5m; stems and branches angled or winged. Leaves deeply 3-5-lobed, base cordate and 3-5-nerved, up to 15 by 15cm, glabrous to stellate-pubescent. Flowers yellow, with a red or purple centre, on 1-3-flowered side branches; petals 25-30mm long. Fruit ellipsoid, 12-15mm across, with woolly floss inside.

K7; 1-450m; II, IX, XI *



Gossypioides kirkii

Forest margin, coastal thicket, *Brachystegia* woodland.

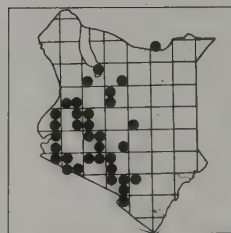
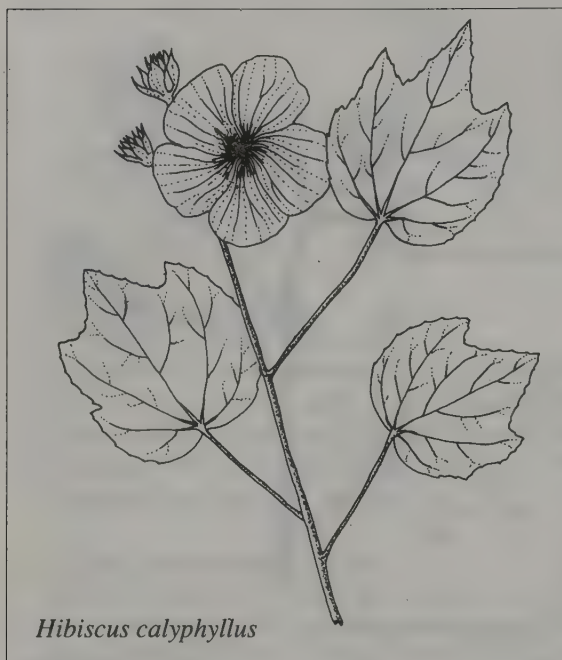
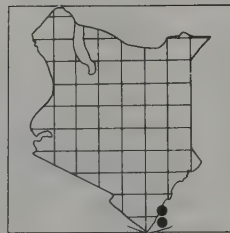
Mpamba mwitu (SWA), Msifu mwitu (DUR), Mukushapungu (GIR).

4. HIBISCUS

Flowers usually axillary and solitary; epicalyx present, of 5-20 bracts. Fruit a loculicidally dehiscent capsule.

- | | |
|--|-----------------------------------|
| 1. Climbing shrub | 4. <i>H. sp. aff. rostellatus</i> |
| * Erect, non-climbing plants | 2 |
| 2. Leaves suborbicular or broadly ovate, often lobed, with a (sub) cordate base, stellate-pubescent; petals entire | 3 |
| * Leaves ovate, base cuneate or obtuse, glabrous or nearly so; petals much-lobed; Coast | |
| | 2. <i>H. schizopetalus</i> |
| 3. Leaf-base(sub-)cordate; epicalyx with 5 long lobes | 1. <i>H. calyphyllus</i> |
| * Leaf-base cordate, with overlapping lobes; epicalyx with 10 short (less than 5mm) lobes | |
| | 3. <i>H. tiliaceus</i> |

Note. There are some taxa more or less closely related to *H. calyphyllus*: for a proper treatment a specialist will have to look into the whole genus.

*Hibiscus calyphyllus**Hibiscus schizopetalus*

1. *Hibiscus calyphyllus* Cav.

Woody herb or shrub 0.7-3m. Leaves suborbicular or broadly ovate, obscurely or clearly 3-5-lobed, base (sub)cordate, apex acute, margin serrate, up to 12 by 12 (19 by 19)cm, stellate-pubescent and often somewhat sandpapery. Flowers yellow with red or purple throat; petals up to 6cm. Fruit ellipsoid, to 25 by 15mm.

K1234567; 550-2400m; I-XII

Riverine, in forest margins, thickets, bushland and bushed grassland, both in wet and rather dry habitats. Leltangoyet, Leledonget (KIP), Esubukioi narok (MAA), Kapenyan (PKT), Sulube (SAM), O'tanya (TUG), Nauru-kasiko (TUR). The bark is used to make string or rope.

2. *Hibiscus schizopetalus* (Mast.) Hook.f.

Shrub, 2-4.5m. Leaves ovate or elliptic, base cuneate or obtuse, 3-veined from base, apex acute, margin crenate-dentate, 3-9 by 1.5-4cm, glabrous or nearly so. Flowers bright red, long-stalked; petals 3-6cm long, much-divided. Fruit ellipsoid, to 38 by 16mm.

K7; 1-150m; VIII-IX *

In deciduous coastal bushland, often near water (e.g. mangrove).

3. *Hibiscus tiliaceus* L.

Shrub or tree 2.5-7.5m, evergreen. Leaves very pale green beneath, almost round, base deeply cordate, apex (shortly) acuminate, margin (almost) entire, 5-9-nerved from base, 3-16 by 3-16cm, stellate-tomentellous. Flowers yellow with red base fading to red, long-stalked in terminal panicles; petals 6-7cm long. Fruit round, 20-25mm.

K7; near high water mark; I, III-IV, IX-XII *

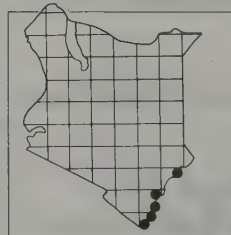
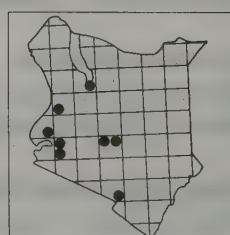
On beach or mangrove edge.

Mtakawa (SWA), Mkungu-Wazimu (BAJ). The bark yields a strong fibre.

4. *Hibiscus* sp. aff. *H. rostellatus* Guill. & Perr.

A climber to 10m high, e.g. Luke & Robertson 1323.

K7; Vitengeni R., Mangea, Cha Simba and Jaribuni.

*Hibiscus tiliaceus**Pavonia kilimandscharica*

5. PAVONIA

Flowers usually solitary, but sometimes in terminal "heads"; epicalyx present. Fruit of indehiscent carpels separating from the torus.

1. Epicalyx of 6-9 bracts which are much longer than calyx; mericarps not awned

2. *P. propinqua*

- * Epicalyx of 10-12 bracts, about as long as the calyx; mericarps awned

2

2. Leaves unlobed or 3-lobed, longer than wide, sparsely hairy; flowers solitary

1. *P. kilimandscharica*

- * Leaves 3-5-lobed, as long as wide, densely hairy; flowers in groups **3. *P. urens***

1. *Pavonia kilimandscharica* Gürke

Woody herb or shrub 1-1.5m. Leaves narrowly elliptic, sometimes 3-lobed, base cuneate or obtuse, apex acute, margin crenate-dentate, 2-5.5 by 0.9-3.3cm, stellate-sandpapery. Flowers white or mauve with purple centre, solitary and axillary; petals 18-20mm long. Fruit about 8mm long, each mericarp with 5-6mm long acumen.

K12345; 1600-2700m; I, VII-XI *

Dry or moist forest; also in dense riverine forest. Chemandililiet (KIP).

2. *Pavonia propinqua* Garcke

(*P. grewioides* Boiss.)

Shrub 0.3-2m. Leaves ovate, base cuneate or rounded, (subcordate), apex rounded, margins crenate-serrate, 2-7.5 by 1-4cm, stellate-sandpapery. Flowers yellow or cream, fading to pink or reddish, axillary; petals 14-15mm long. Mericarps 7-9mm long.

K1467; 1-1300m; I-VIII, X-XII (V, XII)

Dry bushland or bushed grassland; also on black cotton soil.

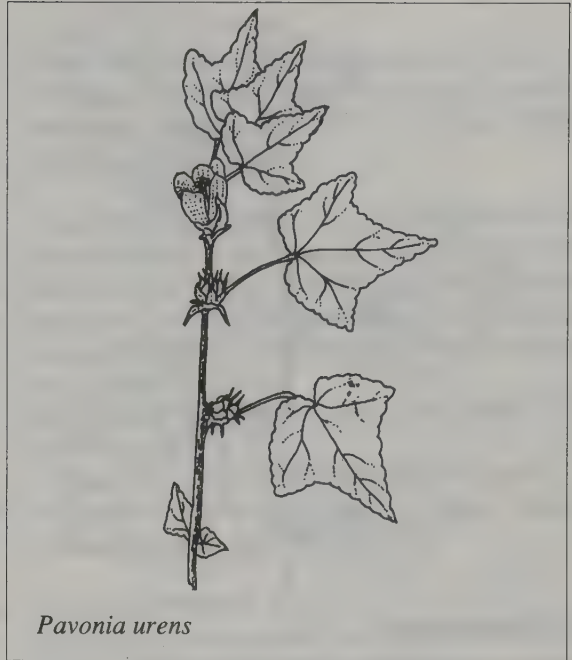
3. *Pavonia urens* Cav.

Woody herb or shrub 1-4m, with somewhat irritant hairs. Leaves 3-5-lobed (except the uppermost ones which are unlobed and oblong), with coarsely serrate-dentate margins, 3-20 by 3-20cm, stellate-sandpapery above, stellate-pubescent beneath. Flowers pink or mauve, in small clusters; petals 14-20mm long. Mericarps about 5mm long, 3-awned.

K1234567; 1250-2900m; I-XII (IX, XII)

Forest (margins), riverine vegetation, secondary bush/grassland.

Murera-Njau, Muruamba (KIK), Modosiet (KIP), Olmeswa, Osubukioi-Orok (MAA), Matus (MAR),



Pavonia urens

Silube (SAM). The stems are used for making rope. Note: many varieties have been described, but I prefer to see this as a single, variable species, as in the Flora Zambesiaca.

6. THESPESIA

Branchlets, petioles and leaves with small scales. Flowers solitary and axillary, or in terminal racemes. Epicalyx of 3-5 bracts. Calyx cupuliform, persistent. Fruit woody, indehiscent.

1. Leaf apex obtuse **1. *T. danis***
* Leaf apex long-acuminate **2. *T. populnea***

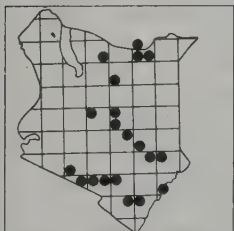
1. *Thespesia danis* Oliv.

Shrub or tree, 1-6(10)m, with fissured bark. Leaves very broadly ovate, base cordate, apex obtuse (rarely apiculate), 2-9 by 2-8cm, densely scaly. Flowers yellow, with a red, pink or purple centre, solitary; petals 32-40mm long. Fruit depressed globose, only young ones seen.

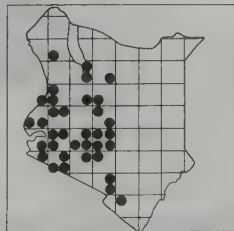
K147; 1-500m; I-V, VII-IX, XI-XII

Forest (margins), secondary bushland, wooded grassland, thicket, riverine, semi-evergreen bushland.

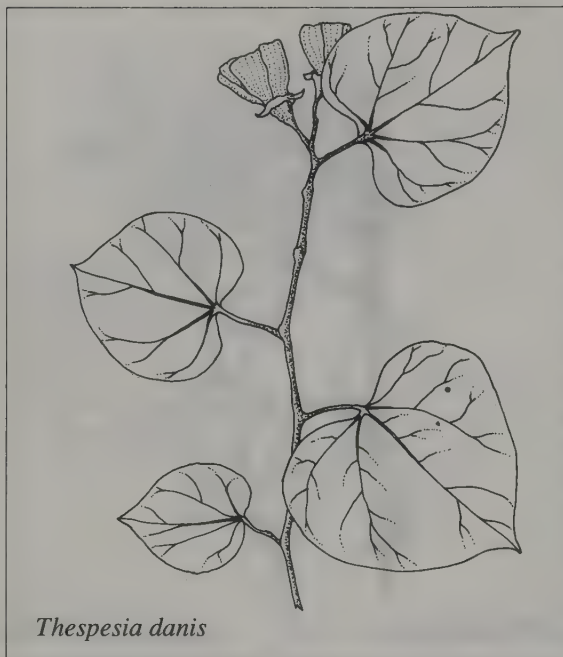
Muhowe (SWA, DIG, GIR), Mlambale (BON, SOM), Mudaanisa (ILW), Danis (ORM), Muoro (PKM), Dane, Danis (SAN), Kobahan, Khaphan (SOM). The stems



Pavonia propinqua



Pavonia urens



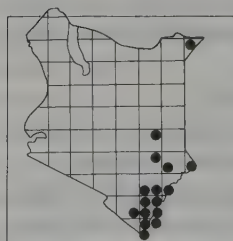
are used to make rungs, bows and arrows, and are also employed as fire-(friction-) sticks; a root decoction is employed against gonorrhoea; dye is made from flowers and fruits.

2. *Thespesia populnea* (L.) Corr.

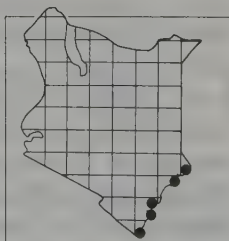
Shrub 3-7.5m; bark grey. Leaves broadly ovate, base cordate, apex acuminate, 6-15 by 5-12cm, densely scaly. Flowers yellow, fading to reddish, solitary, petals 65-85mm long. Fruit depressed globose, 25 by 35-45mm.

K7; 0-10m; I, IX, XI *

On beach near high watermark, or in mangrove swamp. The wood is durable in the ground and in water.



Thespesia danis



Thespesia populnea

133. MALPHIGIACEAE

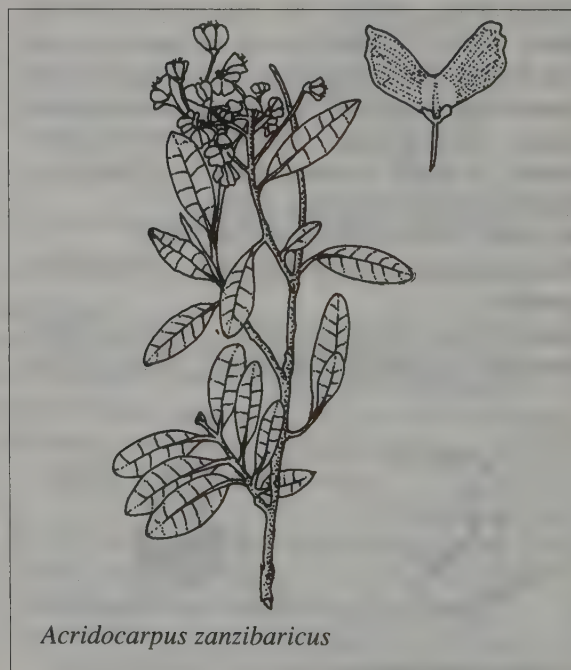
(By S. Wattima)

Leaves opposite or spirally arranged, simple, sometimes stipulate. Flowers in terminal or axillary racemes or panicles; sepals 5, often with glands on the outside; petals 5, usually clawed; stamens 10. Fruit a samara.

- | | |
|---|-------------------------|
| 1. Leaves alternate | 2 |
| * Leaves opposite | 3 |
| 2. Calyx with glands outside; fruit with a lateral wing | 1. <i>Acridocarpus</i> |
| * Calyx without glands; fruit with a circular wing | 2. <i>Caucanthus</i> |
| 3. Flowers yellow; fruit with a lobed wing; near high water mark | 5. <i>Tristellateia</i> |
| * Flowers cream, pink or pale yellow; fruit with an unlobed wing | 4 |
| 4. Kakamega forest species; fruit with a wing which is open at the apex | 3. <i>Flabellaria</i> |
| * Drier sites, usually in bush- or woodland; fruit with closed wing | 5 |
| 5. Leaf base cordate | 2. <i>Caucanthus</i> |
| * Leaf base rounded or cuneate | 4. <i>Triaspis</i> |

1. ACRIDOCARPUS

Leaves alternate or spiral, exstipulate, often with glands



near the leaf base. Inflorescence a terminal or axillary raceme. Fruit with a straight or oblique lateral wing.

1. Leaves densely hairy 2. *A. glaucescens*
- * Leaves glabrous or nearly so 2
2. Inflorescences with thickened stalk 1. *A. alopecurus*
- * Inflorescences with normal stalk 3
3. Species at 1-600 m alt.; inflorescence 8-20 cm long 3. *A. zanzibaricus*
- * Species found above 1500 m (Taita Hills); inflorescence 2-4 cm long 4. *A. taxon A*

1. *Acridocarpus alopecurus* Sprague

Shrub or climber to 6m. Bracts triangular, broader than long, 0.8-1 mm long; rachis of inflorescence thickened and sausage-like after flowering; inflorescence axillary. Fruit red.

Occurs in the Shimba Hills, Dzombo, at Vitengeni, Marenji and Witu. In forest margins.

2. *Acridocarpus glaucescens* Engl.

var. *ferrugineus* (Engl.) Launert

Shrub to 2.5 m, sparingly branched. Leaves linear-lanceolate to oblanceolate, base attenuate, apex finely apiculate, 0.5-6 by 0.5-1.5 cm, brownish-tomentose on both surfaces, becoming grey-pubescent beneath. Flowers bright yellow, in a pyramidal raceme; petals 6-10 mm long. Fruit with an obliquely ovate wing clasping the nut nearly to the base.

K1; 450-850 m; V, X*

Semi-desert bushland, among rocks.

3. *Acridocarpus zanzibaricus* A. Juss.

Shrub or sometimes a climber to 4 m. Leaves oblong to obovate, base cuneate, apex mucronate, 6-16 by 2-5.5 cm, glabrous, shiny above. Flowers yellow, in a terminal raceme; petals to 20 mm long. Fruit with a semi-ovate oblique wing.

K17; 1-600 m; I-VI, VIII-XII (X-XII)

Forest margin, thicket on coral, bushland on sand.

Mwenda-Usiku (SWA), Muguro (GIR), Finyangurura (SAN), Edapalakuyen (TUR). An attractive shrub, suitable as an ornamental.

4. *Acridocarpus taxon A* VULNERABLE

Woody climber to 8 m. Leaves elliptic, base cuneate, apex bluntly acuminate, 7-16 by 3-4.5 cm, glabrous or nearly so. Flowers yellow, in terminal racemes to 4 cm long; petals about 13 mm long. Fruit with an oblique wing, 4-5 by 1.3-1.9 cm.

K7; endemic to Ngangao forest, Taita Hills, 1650-1800 m; II, IX*

Albizia-Cola forest in the drier parts of Ngangao.

Presumably a new species, but the material (Drummond & Hemsley 4331) is rather poor.

2. CAUCANTHUS

Leaves opposite or spirally arranged, with deciduous stipules. Flowers in axillary and/or terminal racemes or panicles. Fruit with a lateral circular wing.

1. Leaves spirally arranged 1. *C. albidus*
- * Leaves opposite 2. *C. auriculatus*

1. *Caucanthus albidus* (Niedenzu) Niedenzu

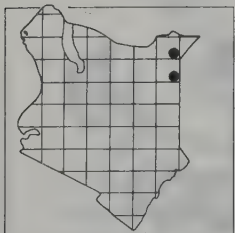
(Climbing) shrub to 3 m. Leaves obovate to circular, base cuneate or rounded, apex emarginate or cuspidate, 0.5-3.5 by 0.4-3 cm, densely silvery-hairy beneath. Flowers white or cream, in racemes; petals 3.5-6 mm long. Fruit with a circular wing.

K147; 200-1050 m; I-II, IV-VII, IX, XI-XII (V, XII) Dry bushland and semi-desert scrub, often in rocky sites.

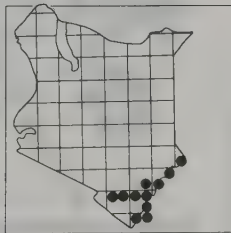
Gadi-bera, Uldig (BOR), Lahauen (REN), Nakora (TUR). A favourite elephant browse.

2. *Caucanthus auriculatus* (Radlk.) Niedenzu

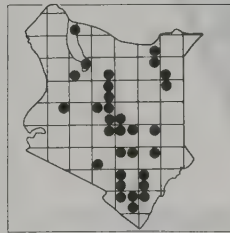
Climber to 3 m high and 10 m long. Leaves ovate, base cordate, apex acute or obtuse, rarely emarginate, 2-12



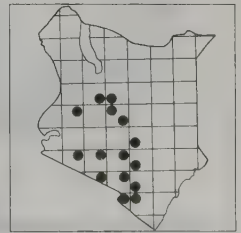
Acridocarpus glaucescens



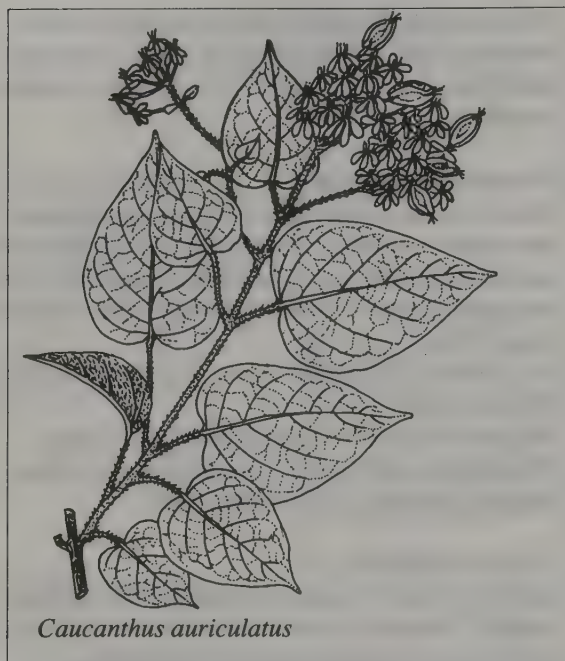
A. zanzibaricus



Caucanthus albidus



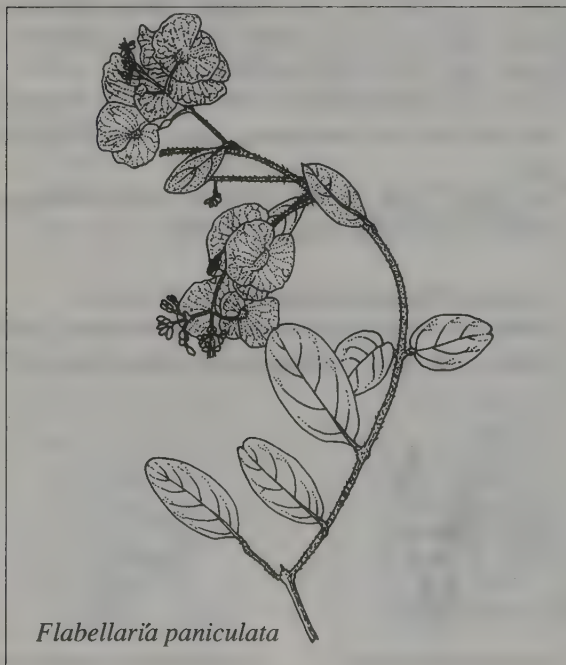
Caucanthus auriculatus



by 2-9 cm, densely grey-pubescent beneath. Flowers pale yellow, in corymbs; petals 6-9 mm long. Fruit with a circular wing.

K13467; 600-2200 m; I, III, V-VIII, XI-XII

Deciduous woodland and -bushland, especially in rocky areas; also riverine.



3. FLABELLARIA

Leaves opposite, exstipulate. Flowers in axillary/terminal panicles.

Flabellaria paniculata Cavan.

Woody climber to 15 m long. Leaves ovate or broadly elliptic, base obtuse or rounded, apex acute or apiculate, 5-15 by 4-10 cm, silky-tomentose beneath. Flowers white or cream, in panicles; petals to 7 mm long. Fruit with 2 wings, connate at the base, free at the apex. K5, collected once (Verdcourt EA 11554) in Kakamega Forest.

4. TRIASPIS

Leaves opposite, with or without stipules. Inflorescence a terminal or axillary corymbose panicle or umbel. Fruit with a lateral circular wing, and sometimes with a small dorsal wing.

1. Leaves densely silvery-tomentose, 0.9-2.3 by 0.8-1.8 cm

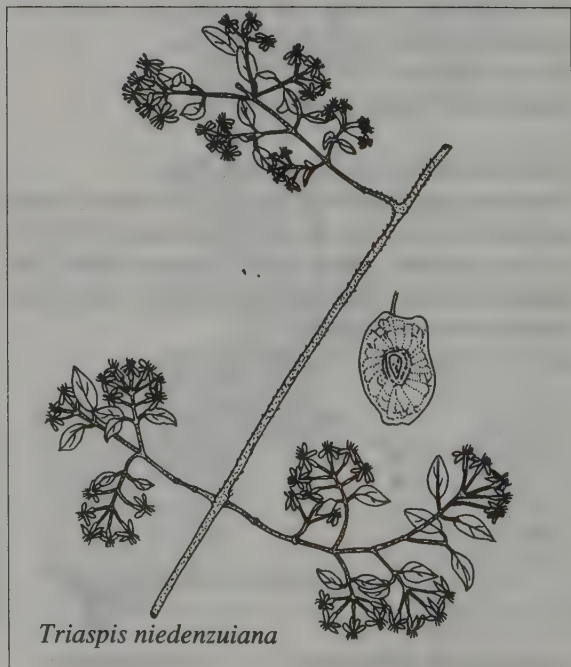
2. *T. niedenzuiana*

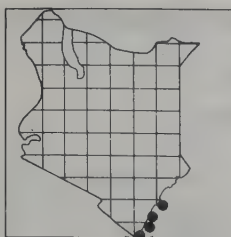
- * Leaves glabrous or nearly so, 4-8.5 by 2-4 cm

1. *T. mozambica*

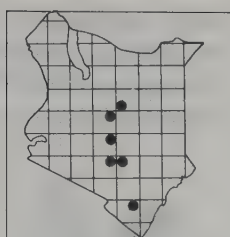
1. *Triaspis mozambica* A. Juss.

Climber to 3 m. Leaves elliptic or ovate, base rounded or cuneate, apex acute or apiculate, 4-8.5 by 2-4 cm,





Triaspis mozambica



Triaspis niedenzuiana

hairy when young but soon glabrous. Flowers greenish-yellow, in terminal and axillary corymbs to 2 cm; petals 4.5-6 mm long. Fruit brown, 2-2.7 cm across. K7; 1-200 m; I, III, VI, VIII, X-XI*

Bushland, thicket or dry forest on sand or coral. Mbugu bafe (SWA). The leaves are used in stomach medicine.

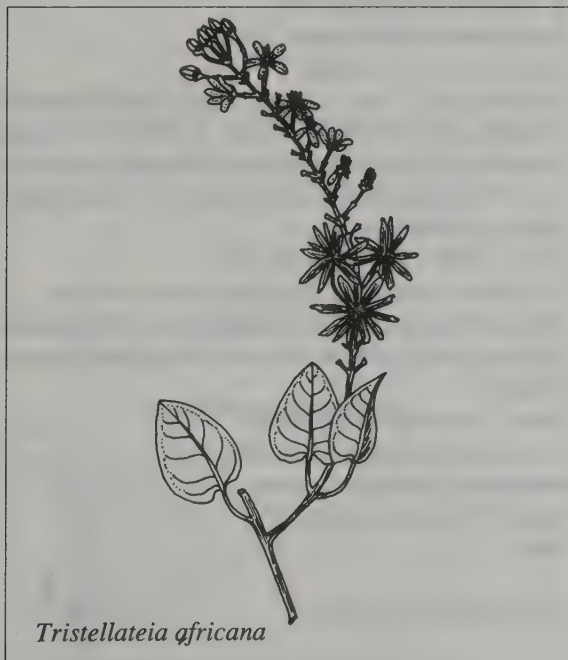
2. *Triaspis niedenzuiana* Engl.

[incl. *T. erlangeri* Engl.]

Climber to 3 m. Leaves ovate or broadly elliptic, base usually rounded, apex obtuse or subacute, 0.9-2.3 by 0.8-1.8 cm, silvery tomentose. Flowers pale pink or white, in axillary cymes or terminal corymbs; petals 3.5-6 mm long. Fruit 9-11 mm across when young (no mature ones known).

K147; 600-850 m; II, IV, XII*

Dry bushland.



Tristellateia africana

5. TRISTELLATEIA

Leaves opposite, with a pair of glands near the petiole apex.

***Tristellateia africana* S. Moore**

Climber to 5 m. Leaves ovate, base cordate or rounded, apex obtuse to acuminate, 3.5-9.5 by 2.5-6 cm, glabrous. Flowers yellow, in terminal racemes 5-12 cm long; petals 10-12 mm long. Fruit with a dorsal spine 8-12 mm long, and with a deeply 4-10-lobed lateral wing to 18 mm wide.

K7; 0-150m; V-VI, VIII-IX, XI-XII*

On coral and sand near the high tide mark: Malindi area and S of Mombasa.

Mruo (SWA).

135. ERYTHROXYLACEAE

Leaves alternate, with more or less united stipules. Flowers axillary, solitary or in fascicles. Sepals and petals 5, stamens 10. Fruit a 1-seeded drupe.

1. Styles 3, mostly free; petals 2.5-7mm long

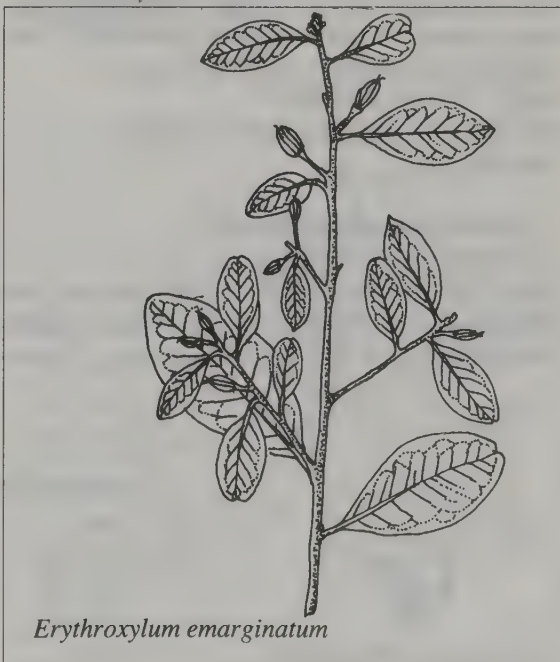
1. *Erythroxylum*

* Styles 2, united, with 2 stigmas; petals 12-15mm long

2. *Nectaropetalum*

1. ERYTHROXYLUM

Young shoots often flattened. Petals with large



Erythroxylum emarginatum

nectar-appendage on the inside. Styles 3, free or partly united.

1. Leaf apex rounded or emarginate 2

* Leaf apex shortly and bluntly acuminate

2. *E. fischeri*

2. Leaf venation prominent above; stipules persistent, 1-2mm long 1. *E. emarginatum*

* Leaf venation not prominent; stipules caducous, 2-5mm long 3. *E. platyclados*

1. *Erythroxylum emarginatum* Thonn.

Shrub or tree 2-6m. Leaves shiny above, elliptic, base cuneate, apex slightly emarginate, 2.5-12 by 1.5cm, glabrous. Flowers white or cream (sometimes with a red mark), solitary or in fascicles; petals 3-4.5mm long. Fruit orange to red, ellipsoid, 8-13 by 6-8mm.

K147; 1-1500m; I, IV-V, VII-VIII, XI-XII

Drier forest types (incl. mist forest), littoral thicket; occasionally in secondary bush derived from forest.

Karra (BOR), Mwotya-mwoqa (ILW), Ilchingei (SAM).

2. *Erythroxylum fischeri* Engl.

Shrub or tree 1-15m, evergreen; bark grey or brown, flaking in scales. Leaves shiny above, elliptic, base cuneate, apex shortly and bluntly acuminate, 6-16 by 3-6.5cm, glabrous. Flowers white, in fascicles of 1-4, often aggregated into a seemingly terminal inflorescence; pedicels thickened; petals 5-7mm long. Fruit orange or red, ellipsoid, 10-19 by 6-9mm.

K457; 1-1200m; I, V, XII *

Riverine or groundwater forest or -thicket.

Muluhi (PKM).

3. *Erythroxylum platyclados* Boj.

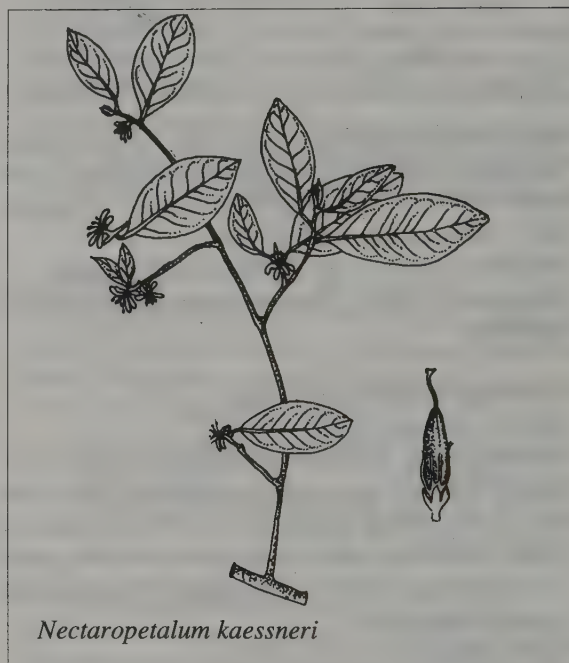
[*E. platycladum* of checklist]

Shrub, 2-3 (to tree of 6)m. Leaves obovate, base cuneate, apex rounded (and occasionally slightly emarginate), 2.5-7 by 1.3-4.2cm, glabrous. Flowers

white, in fascicles of 1-6; petals 2.5-3.5mm long. Fruit red, ellipsoid, 5-6mm long.

K7; near sea level; *

Kiunga-Kipini area, on sand dunes.



Nectaropetalum kaessneri

2. NECTAROPETALUM

Nectaropetalum kaessneri Engl.

(incl. *N. sp.* of checklist)

Shrub or tree 1.5-5m. Leaves elliptic, base cuneate or rounded, apex rounded or obtuse, 2.5-8.5 by 1.5-3cm, glabrous. Flowers white, covering the plant, spectacular, 1-5 in axillary fascicles; petals 12-15mm long. Ripe fruit unknown.

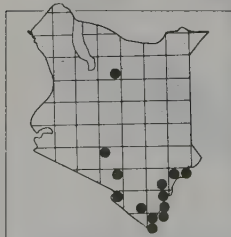
K17; 1-250m; I-IV, VII, XI-XII *

Dry forest, (secondary) bushland, littoral thicket.

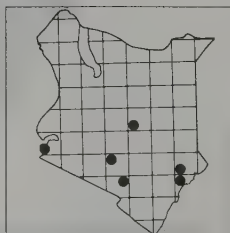
Mfunda Mweupe (SWA), Botha (BON). The wood is hard, and used by the Boini for building poles and tool handles.

Note: Verdcourt distinguishes a var. *parvifolium*, but the leaf size shows continuous variation and I see no reason to uphold it.

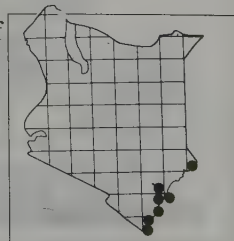
Nectaropetalum kaessneri



Erythroxylum emarginatum



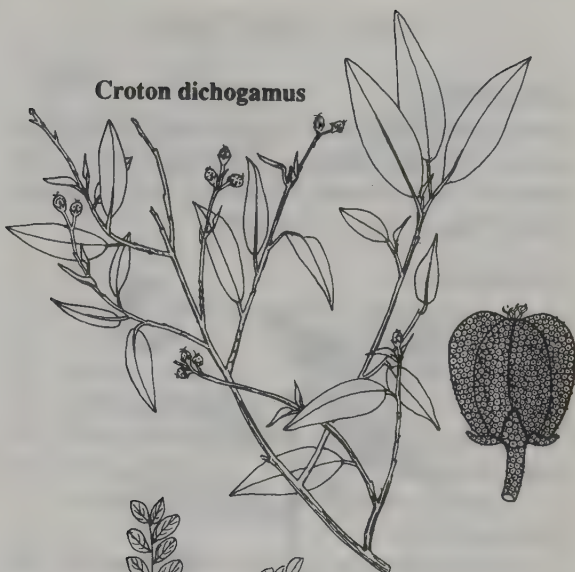
E. fischeri



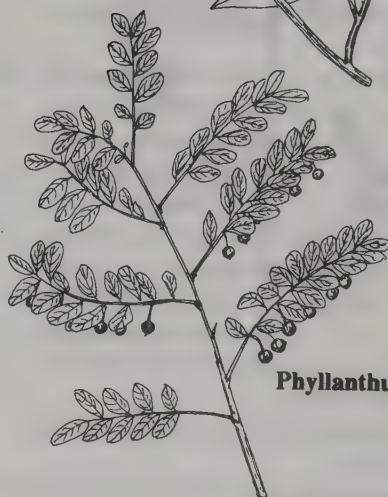
Clutia abyssinica



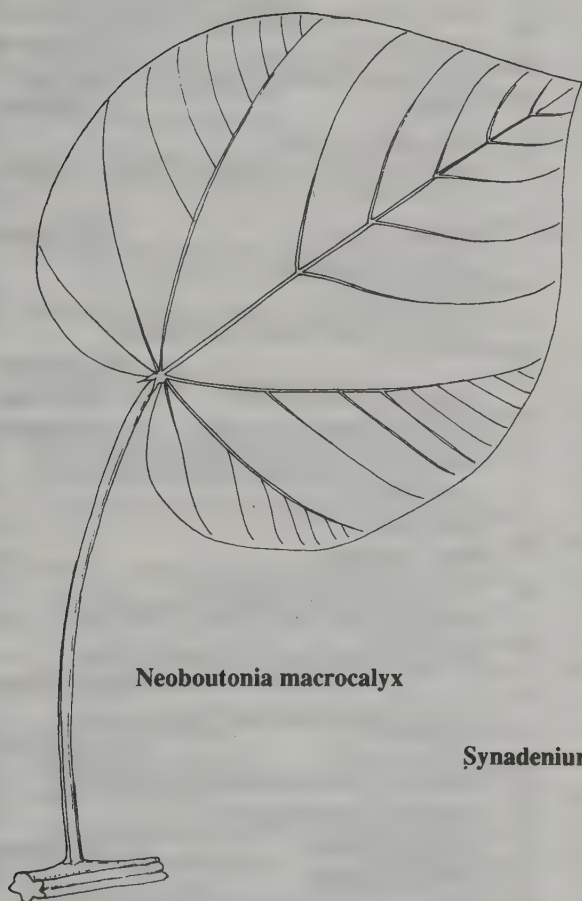
Croton dichogamus



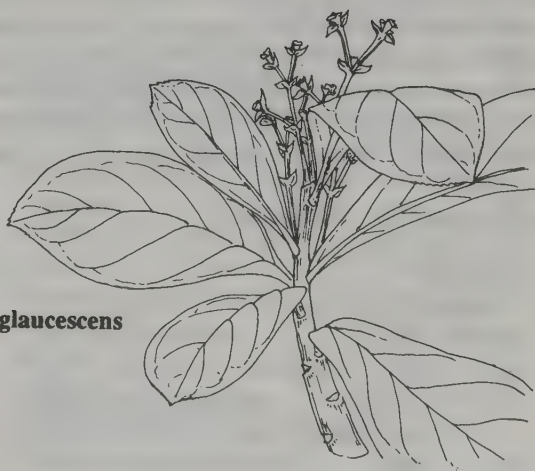
Phyllanthus ovalifolius



Neoboutonia macrocalyx



Synadenium glaucescens



135D. LINACEAE

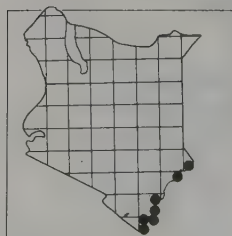
1. HUGONIA

Some lateral shoots with coiled hooks for climbing. Leaves alternate, stipulate. Sepals and petals 5, stamens 10 (5 long, 5 short). Styles 2-4, free (or fused at base). Fruit a drupe, 2-5-seeded.

*Hugonia castaneifolia* Engl.

Shrub or liana 1-7m. Climbing hooks (sub)opposite, spirally coiled. Leaves elliptic or slightly (ob)ovate, base cuneate, apex acute or acuminate, margin serrate (rarely subentire), 5-26 by 1.5-7cm, glabrous or pubescent; stipules divided into several thread-like arms. Flowers yellow, axillary in 1-4; petals 14-20mm long. Fruit white or orange, round or obovoid, 12-15mm across.

K7; 1-450m; III, VII-X, XII *

*Hugonia castaneifolia*

Drier forest or secondary bushland.

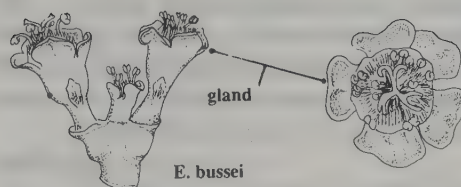
Mkuro (SWA, GIR). A root infusion (which is emetic) is employed against snakebite by the Giriama.

136. EUPHORBIACEAE

A very variable family. Plants monoecious or dioecious. Stipules present, but may be quickly caducous. Inflorescence very variable; flowers unisexual, usually small; calyx of 3-6 lobes or sepals; petals often absent; disk often present. Stamens 3-many. Ovary superior, usually 3-celled; styles usually 3. Fruit often 3-lobed.

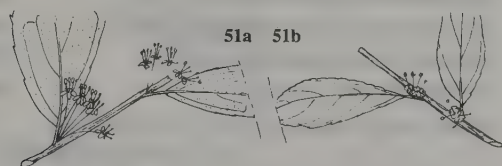
- | | |
|--|----------------------------|
| 1. Leaves compound | 2 |
| * Leaves simple (occasionally palmately lobed) or absent | 3 |
| 2. Hairs simple | 29. <i>Oldfieldia</i> |
| * Hairs stellate | 32. <i>Ricinodendron</i> |
| 3. Leaves opposite | 4 |
| * Leaves alternate or in bunches, or absent | 5 |
| 4. Plants with latex; petioles of opposite leaves of equal length | 15. <i>Excoecaria</i> |
| * Latex absent; petioles of opposite leaves quite unequal | 22. <i>Mallotus</i> |
| 5. Leaves deeply lobed | 6 |
| * Leaves not, or only shallowly, lobed, or absent | 8 |
| 6. Leafbase peltate | 33. <i>Ricinus</i> |
| * Leafbase not peltate (or rarely so in 21. <i>Macaranga</i>) | 7 |
| 7. Shrubs or small trees of dry habitats | 20. <i>Jatropha</i> |
| * Large tree of moist forest | 21. <i>Macaranga</i> |
| 8. Plants succulent, cactus-like | 14. <i>Euphorbia</i> |
| * Plants not cactus-like (slightly fleshy in 38. <i>Synadenium</i>) | 9 |
| 9. Plants spiny | 10 |
| * Plants not spiny | 18 |
| 10. Branches ending in a spine | 11 |
| * Spines on trunk, or at nodes of branches | 12 |
| 11. Leaves 4-8cm long, with rounded base | 1. <i>Acalypha echinus</i> |
| * Leaves 1-4cm long, with cuneate base | 14. <i>Euphorbia</i> |
| 12. Spines on trunk and older branches only | 13 |
| * Spines on young branches | 15 |
| 13. Leafbase cordate | 21. <i>Macaranga</i> |
| * Leafbase cuneate | 14 |
| 14. Leaf margin often shallowly toothed; bark | |

- rough, flaking **6. *Bridelia micrantha***
 * Leaf margin entire; bark soft and thick **23. *Margaritaria***
15. Spines small, clustered in small cushions from which leafy branches arise **30. *Phyllanthus***
 * Spines in pairs at nodes **16**
16. Latex present **20. *Jatropha***
 * Latex absent **17**
17. Leaves only on short, specialized side twigs; moist forest **30. *Phyllanthus***
 * Leaves not confined to short twigs; moderately dry habitats **13. *Erythrococca***
18. Star hairs or scales present on leaves, young branches and inflorescence **19**
 * Star hairs or scales absent **25**
19. Leaves scaly beneath **11. *Croton***
 * Leaves with stellate hairs (at least near base of midrib beneath) **20**
20. Leaves as broad as long **21**
 * Leaves longer than wide **22**
21. Petiole 0.5-2.5cm; dry bushland **17. *Givotia***
 * Petiole 5-20cm; forest **27. *Neoboutonia***
22. Inflorescences terminal **23**
 * Inflorescences axillary, or on old wood **24**
23. Top of petiole often with 2 glands; stipules simple **11. *Croton***
 * Petiole without glands; stipules divided **8. *Cephalocroton***
24. Inflorescences on old wood; western **2. *Alchornea***
 * Inflorescences axillary; coastal **26. *Mildbraedia***
25. Top of petiole with stipels or large glands **26**
 No stipels or glands near petiole apex (*Erythrococca* occasionally has small glands) **28**
26. Leaves sparsely pubescent or glabrous; moist Camphorwood forest of Central Kenya **25. *Micrococca***
 * Leaves glabrous; coastal forest, or drier sites **27**
27. Leaf margin entire **5. *Aristogeiton***
 * Leaf margin toothed **36. *Spirostachys***
28. Plants with latex **29**
 * Latex absent, or presence/absence unknown **33**
29. Leaves somewhat fleshy **38. *Synadenium***
 * Leaves not fleshy **30**
30. Flowers in cyathea, surrounded by glands

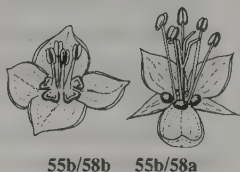
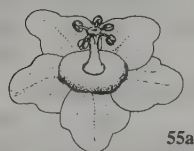


- 14. *Euphorbia***
 * Flowers not surrounded by glands, not in cyathea **31**
31. Leafbase cordate **20. *Jatropha***
 * Leafbase cuneate **32**
32. Inland tree (above 1000m); fruit bristly **34. *Sapium***
 * Coastal tree (Kiunga area); fruit not bristly **15. *Excoecaria***
33. Inflorescence a cyathium, surrounded by glands (see illustration above, at 30) **34**
 * Inflorescence of normal flowers **35**
34. Leaves fleshy **38. *Synadenium***
 * Leaves not fleshy **14. *Euphorbia***
35. Inflorescence on old wood **36**
 * Inflorescence from among the leaves **39**
36. Inflorescence a spike or panicle **37**
 * Inflorescence a fascicle **38**
37. Leaf-margin toothed, leaf apex acuminate **2. *Alchornea***
 * Leaf-margin entire, leaf apex obtuse **19. *Hymenocardia***
38. Leaf apex bluntly acuminate; leaves 7-20 by 2.5-8.5cm **12. *Drypetes***
 * Leaf apex rounded; leaves 1.5-3 by 0.7-2cm **30. *Phyllanthus pinnatus***
39. Leaves gland-dotted beneath **40**
 * Leaves not gland-dotted **42**
40. Leaf apex sharply acuminate; moist forest **21. *Macaranga***
 * Leaf apex obtuse or bluntly acuminate; drier habitats **41**
41. Leaves ovate; flowers yellow-green; fruit 2 by 3mm **1. *Acalypha***
 * Leaves elliptic-obovate; flowers white; fruit 20-40 by 30-40mm **31. *Pycnocomma***
42. Flowers with sepals and petals **43**
 * Flowers with sepals only **49**
43. Flowers in axillary fascicles/dense bunches without a common stalk **44**
 * Flowers in stalked racemes/spikes/corymbs **47**

44. Sepals overlapping (imbricate) in bud 45
 * Sepals valvate in bud 6. *Bridelia*
 45. Upland plants; leaves 2-15 by 1-12cm 46
 * Coastal plants; leaves 3-7 by 1-4cm 35. *Savia*
 46. Shrubs to 6m; leaf apex obtuse or acute
 10. *Clutia*
 * Trees 6-30m; leaf apex acuminate
 18. *Heywoodia*
 47. Inflorescence axillary 48
 * Inflorescence terminal; coastal 71
 48. Leaves broadly ovate, 5-9-nerved from the
 cordate base 20. *Jatropha*
 * Leaves elliptic-ovate, at most 3-nerved from
 the base 9. *Cleistanthus*
 49. Flowers solitary, or in axillary fascicles/dense
 bunches or glomerules 50
 * Flowers in elongated inflorescences, or in leaf-
 opposed (stalked) cymes 59
 50. Leaf margin toothed 51
 * Leaf margin entire 52
 51. Flowers in fascicles 12. *Drypetes*



- * Flowers in dense glomerules 13. *Erythrococca*
 52. Sepals less than 3mm long 53
 * Sepals 6-13 by 5-10mm; Taita Hills
 40. *Zimmermannia*
 53. Leaves sandpapery-pubescent beneath; shrub
 of bush/woodland 13. *Erythrococca*
 * Leaves glabrous (if slightly pubescent, then
 forest tree) 54
 54. Leafbase asymmetrical 12. *Drypetes*
 * Leafbase symmetrical 55
 55. Male flowers with entire, ringshaped disk;
 leaves usually larger than 5 by 3cm, usually
 with acuminate apex 56



- * Male flowers with disk of separate glands;
 leaves usually smaller than 6 by 3.5cm,
 usually with rounded or obtuse apex 58
 56. Trees 57
 * Shrubs; flower stalks long and slender;
 stamens 5 24. *Meineckia*
 57. Male flowers with central disk; female flowers
 with very short styles 12. *Drypetes*



- * Male flowers with disk near the sepals; female
 flowers with styles 1-2mm long 23. *Margari-*
 taria
 58. Sepals unequal; male flowers with pistillode
 (remnant female part) 16. *Flueggia*
 * Sepals subequal; male flowers without
 pistillode 30. *Phyllanthus*
 59. Leaf margin toothed 60
 * Leaf margin entire 66
 60. Inflorescence a leaf-opposed cyme
 37. *Suregada*
 * Inflorescence terminal or axillary 61
 61. Leaf margin with glandular teeth 2. *Alchornea*
 * Teeth not glandular 62
 62. Tree over 4m high; inflorescence a terminal
 spike 63
 * Shrubs; if small trees, then flowers in axillary
 spikes 64
 63. Coastal species (Kiunga area) 15. *Excoecaria*
 * Inland species, found above 1000m alt.
 34. *Sapium*
 64. Leaves 10-40cm long; petiole 2-4mm thick
 4. *Argomuelleria*
 * Leaves less than 15cm long; petiole less than
 1.5mm thick 65
 65. Buds scaly 13. *Erythrococca*
 * Buds not scaly 25. *Micrococa*
 66. Leaves scabridulous-pubescent beneath; leaves
 in bunches on older twigs and spaced on
 young twigs 13. *Erythrococca*
 * Leaves glabrous or pubescent, but not
 scabridulous; leaves spaced 67

67. Leaves 1-3 by 0.7-2cm; tiny prickles present at base of branchlet **30. *Phyllanthus***
 * Leaves usually larger; prickles absent **68**
68. Inflorescence a leaf-opposed cyme; leaves glabrous **37. *Suregada***
 * Inflorescence an axillary or terminal raceme or spike **69**
69. Shrubs of coastal limestone outcrops; inflorescences axillary; fruit green, 3-lobed, 3.5-10mm across **70**
 * Trees or shrubs with wider distribution; inflorescences axillary or terminal; fruit red or black, round, 3-5mm across **3. *Antidesma***
70. Petiole 2-11mm; male inflorescence to 19cm long; ovary cells with 1 ovule **25. *Micrococca***
 * Petiole 4-5mm; male inflorescence 2-6.5cm long; ovary cells with 2 ovules **39. *Thecacoris***
71. Flowers yellow; petals 7-10mm long; fruit 15 by 30mm **7. *Cavacoa***
 * Flowers white; petals 2mm long; fruit 4 by 5mm **28. *Neoholstia***

1. ACALYPHA

Leaves alternate, serrate, stipulate. Male flowers very small, in groups with small bracts. Female flowers with a large bract, 1-3 together. Stamens 8; petals absent. Fruit a 3-lobed capsule, splitting into three 2-valved carpels.

1. Male and female flowers in the same inflorescence **2**
 * Male and female flowers in separate inflorescences **4**
2. Male flowers below the female flowers **5**
 * Male flowers above the female flowers **3**
3. Leaves widest at, or above the middle **4. *A. neptunica***
 * Leaves widest below the middle **3. *A. fruticosa***
4. Female flowers in terminal (branched) panicles **6. *A. racemosa***
 * Female flowers in terminal spikes **5. *A. ornata***
5. Female flowers stalked; ovary glabrous **1. *A. echinus***
 * Female flowers (sub)sessile; ovary pubescent **2. *A. engleri***

1. *Acalypha echinus* Pax & K.Hoffm.

Straggling shrub to 4m. Older branches resembling

spines. Leaves ovate or elliptic, base rounded, apex obtuse, 4-8 by 2-4.5cm, glabrous but for midrib and domatia. Flowers in racemes. Fruit 2.5 by 4mm. K7; collected at Mwachi, Vitengeni, Marafa, Boni and lower Tana R. in riverine forest, 1-150m.

2. *Acalypha engleri* Pax

Shrub to 3m. Leaves elliptic or ovate, base cuneate to rounded, apex acute or bluntly acuminate, margins serrate, 7-14 by 4-8.5cm, slightly pubescent. Flowers white or greenish, in solitary spikes. Fruit 2.2 by 4mm. K7; 80-500m; ?*

Forest (margins): Shimba Hills.

3. *Acalypha fruticosa* Forssk.

(incl. *Acalypha* sp. A of UKWF)

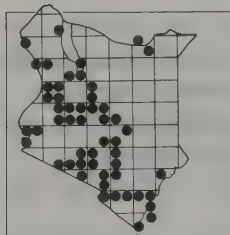
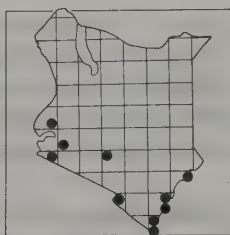
Shrub 1-3.5m. Leaves (except in var. *eglandulosa*) giving off a resinous smell when crushed; ovate, base cuneate or rounded, apex obtuse or bluntly acuminate, margins crenate, 1-8(10) by 0.6-5(6)cm, almost glabrous or pubescent. Flowers yellow-green, tinged with red, in spikes. Fruit 2 by 3mm.

K1234567; 1-1750m; I-XII

Riverine forest or woodland (and then often locally abundant), or dry bushland on alluvial or very rocky soil; near the sea in bushland or thicket; rarely in forest



Acalypha fruticosa

*Acalypha fruticosa**Acalypha neptunica*

away from water; also on overgrazed land, usually in shade.

Mchacha (SWA, GIR), (Mu)Kukua (KAM), Os-siatiado (MAA), Kaparsamogh (PKT), Siatu (SAM), (S)izi (TAI), Loguru/Segoya (TUG), Eteteleit (TUR). Wood ash is put on wounds by the Turkana; Pokot use the twigs for toothbrushes.

Note. Radcliffe-Smith in FTEA distinguishes 3 varieties: var. *fruticosa*, var. *villosa* (especially hairy on the leaf veins) and var. *eglandulosa* (without glands).

4. *Acalypha neptunica* Müll. Arg.

Shrub or tree 1-4m. Leaves elliptic or obovate, base cuneate to subcordate, apex obtuse or (bluntly) acuminate, margin crenate or serrate, 6-18 by 3-9cm, glabrous or pubescent. Flowers greenish or cream, in axillary spikes. Fruit about 3 by 5mm.

K34567; 1-1800m; I-XII (XI)

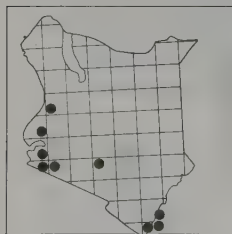
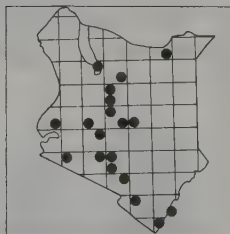
(Riverine) forest; on the coast also in crevices on limestone outcrops.

Plants with densely hairy stems are regarded by Radcliffe-Smith as var. *pubescens* (Pax) Hutch.

Muwewa (SWA), Keturirit (KIP).

5. *Acalypha ornata* A.Rich.

Woody herb or shrub 1-3m. Leaves ovate, base rounded or subcordate, apex acuminate, margins serrate, 5-16 by 3-11cm, sparsely hairy on midrib and veins. Female spikes red, terminal; male spikes cream, axillary. Fruit about 3 by 4mm.

*Acalypha ornata**Acalypha racemosa*

K24567; 1-450m (coast) and 1350-1800m (inland); I-IV, VI-IX, XI (III)

Moist forest or riverine vegetation.

6. *Acalypha racemosa* Baill.

Shrub or woody herb, 30cm to 2.5m. Leaves ovate, base broadly cuneate to subcordate, apex acuminate, margin crenate or serrate, 1-10 by 0.5-6cm, sparsely hairy. Flowers in greenish or reddish spikes (male, axillary) or panicles (female, terminal). Fruit about 1.5 by 2mm.

K13567; 50-2100m; I-XII

Forest or riverine.

Mukulwa (KAM).

2. *ALCHORNEA*

Usually dioecious. Leaves alternate, stipulate, usually long-petiolate. Flowers in spikes or panicles, minute; petals absent.

1. Leaves with cordate base **1. *A. cordifolia***

* Leaves with rounded to attenuate base **2**

2. Leaves at base with 2 thread-like stipules

3. *A. laxiflora*

* Leaves without stipules at the base

2. *A. hirtella*

1. *Alchornea cordifolia* (Schum. & Thonn.) Müll. Arg.

Shrub or tree 4-8m. Leaves with long petioles, ovate, base cordate (the basal lobes slightly overlapping), apex acuminate, margins crenate-serrate, 10-25 by 7-15cm, very sparsely stellate-hairy (mainly in axils of veins). Flowers greenish or cream, dioecious, minute, the males in long panicles, the females in long panicles or spikes, always from old wood below the leaves. Fruit reddish, usually 2-lobed, about 15mm across.

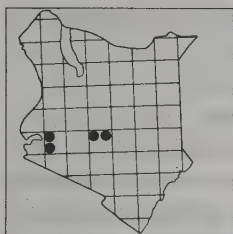
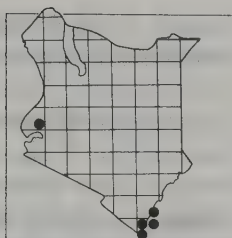
K5; 1250-1450m; II, X *

Moist riverine forest on the lower Yala R. Last collected in 1961.

A favourite food of the sitatunga.

2. *Alchornea hirtella* Benth.

Shrub or tree (rarely scrambling) 2.5-6m. Leaves elliptic or slightly obovate, base attenuate to obtuse, apex shortly acuminate, margins glandular-crenate, 7-18 by 2.5-5cm, glabrous or nearly so. Flowers monoecious or dioecious, in long, reddish-purple terminal or lateral panicles (male) or spikes (female).

*Alchornea hirtella**Alchornea laxiflora*

Fruit about 5 by 9mm, 3-lobed.

K45; 1850-2100m; II-III, VII, XII *

Moist forest (S. Mt Kenya and SW Mau forests)

Ruano, Muruanwe (KIK).

3. *Alchornea laxiflora* (Benth.) Pax & K. Hoffm.

Shrub or tree 1-7m, sometimes scandent. Leaves elliptic or slightly obovate, base cordate or broadly cuneate with 2 stipels to 3mm long, apex acuminate, margin glandular-crenate, 7-18 by 3-7cm, glabrous or nearly so (domatia sometimes present). Flowers yellow-green, functionally dioecious, in lax axillary spikes on older wood (male) or lax terminal spikes (female). Fruit 5-7 by 7-8mm, 3-lobed.

K57; 1-400m (coast) and 1550-1650m (Kakamega); I-IV *

Moist or dry forest.

Munza Jembe (DIG), Manamulira, Mutsutsu (LUH).

*Alchornea laxiflora*

3. ANTIDESMA

Dioecious. Leaves alternate, stipulate. Calyx cupular, 3-8-toothed; petals absent. Fruit a drupe.

Antidesma venosum Tul.

(incl. *A. membranaceum* sensu FTEA, *A. vogelianum* sensu FTEA)

Shrub or tree 2-9m. Leaves elliptic, base rounded or cuneate, apex obtuse to acuminate, 3-15 by 2-7cm, fulvous-tomentose to hairy on veins only. Flowers yellow-green, in axillary or terminal (branched), often hanging spikes; these are often galled. Fruit red to black, globose, 4-9mm.

K457; 1-2100m; I-II, V-VI, VIII, X-XII (I)

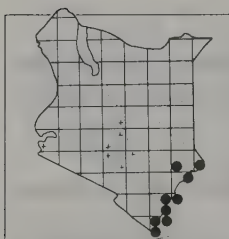
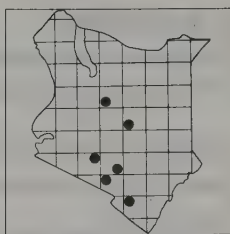
Wooded grassland, secondary bushland at forest edge, riverine forest, moist forest.

Msazizi, Mziwaziwa (SWA), Mulilago (BON), Mdzen-gatsongo (DIG), Musigisigi (ILW), Mukala (KAM), Oguombula (LUO), Muthithio (EMB). The fruit is edible; Kamba use an infusion of the seed for liver complaints.

Note. 3 former species are lumped here, at least for Kenya. None of the characters separating these taxa holds true, including those of FTEA. I am grateful to Q. Luke for his investigations into this taxon.

Map: see next page

*Antidesma venosum*

*Antidesma venosum**Argomuelleria macrophylla***4. ARGOMUELLERA**

Monoecious. Leaves alternate, stipulate. Inflorescence an axillary spike-like raceme, with the male flowers in clusters (occasionally with a single female flower) or with all-male or all-female clusters. Fruit a 3-lobed capsule.

1. Coastal species at low (< 400m) altitudes

1. *A. sp. nov.*

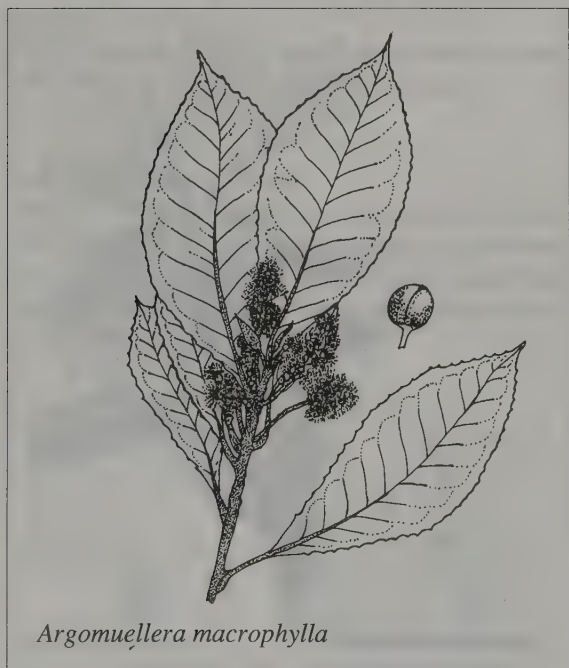
- * Inland species, found above 500m

2. *A. macrophylla*

1. *Argomuelleria sp. nov.* Q. Luke ined.

VULNERABLE

Shrub 2-4m. Rather like *A. macrophylla*, but with shorter petioles (2-5mm long instead of 5-10mm) and almost glabrous leaves. Flowers with much shorter pedicels (1mm instead of 5-6mm).

*Argomuelleria macrophylla*

Pangani (Luke & Robertson 193) and Jaribuni, on limestone: 50-150m.

2. Argomuelleria macrophylla Pax

Shrub or tree 1-7.5m, evergreen. Leaves elliptic, base attenuate, apex acuminate, margin serrate, 10-40 by 3.5-12cm, sparsely or densely pubescent beneath. Flowers white and orange, in long axillary racemes. Fruit about 7 by 13mm.

K1467; 750-1800m; III, V, VIII, X *

(Riverine) forest.

Muthata (KAM).

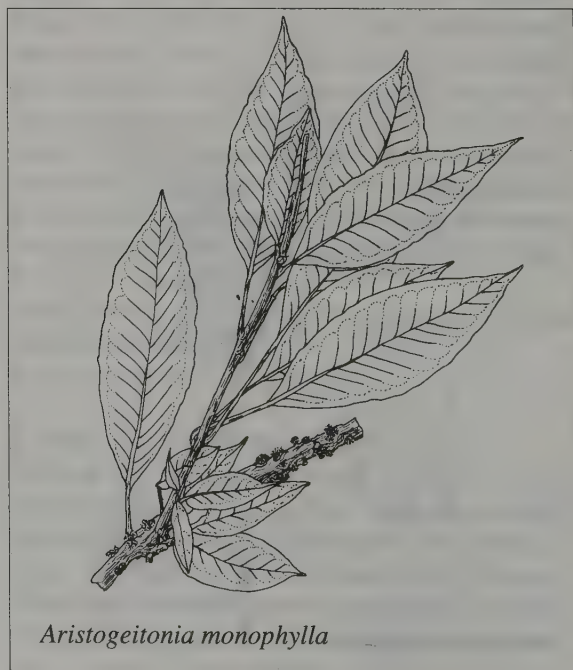
5. ARISTOGEITONIA

Dioecious. Leaves alternate, with stipules on the petiole. Flowers fasciculate on old wood. Fruit a 3-lobed capsule.

Aristogeitonia monophylla Airy Shaw

VULNERABLE

Shrub or tree 2-9m. Leaves elliptic, base rounded or cuneate, apex bluntly acuminate, margins entire but undulate, 6-32 by 2-12.5cm, glabrous; petioles long and more or less pulvinate at both ends. Flowers pale yellow, fasciculate on old wood, to 2mm. Fruit 10 by 12mm.

*Aristogeitonia monophylla*

K7; 1-250m; II, IV, VIII, XI-XII *

Forest or thicket on coral or limestone (Cha Shimba, Mwarakaya, Pangani, Kilifi, Gongoni) and *Cynometra* forest (Sokoke).

6. BRIDELIA

Monoecious or dioecious. Leaves alternate, stipulate. Flowers in dense axillary glomerules, tiny. Petals 5. Fruit a drupe or berry.

1. Leaf apex acuminate; leaves glabrous (except for midrib); moist coastal forest

1. *B. atroviridis*

- * Leaf apex obtuse to subacute, or, if shortly acuminate, the leaves puberulous
- 2. Leaves with tertiary veins very clear and prominent beneath
- * Leaves with tertiary veins not or only slightly prominent beneath
- 3. Coastal species (alt. 1-450m); forest margins, thicket, or bushland

2. *B. cathartica*

- * Inland species (alt. 900-1650m); woodland or wooded grassland
- 4. Fruit 1-celled; shrub or tree 2-18m, often thorny; leaves puberulous, elliptic

3. *B. micrantha*

- * Fruit 2-celled; shrub or tree 1-4.5m, without thorns; leaves more or less pubescent, obovate or broadly elliptic

5. *B. taitensis*

1. *Bridelia atroviridis* Müll. Arg.

Shrub or tree 2-12m. Leaves elliptic, base broadly cuneate to subcordate, apex acuminate, 6-19 by 3-9cm, glabrous except for the midrib. Flowers (greenish-) pink or red, in dense axillary clusters. Fruit green to black, obovoid, 6-8 by 5-6mm.

K7; 50-400m; - *

Moist forest (Shimba Hills and Mrima).

2. *Bridelia cathartica* Bertol.f.

Shrub, tree or climber 0.5-7m; bark greybrown, fissured.

Leaves elliptic to obovate, base cuneate to rounded, apex obtuse or subacute, margin shallowly crenate (rarely subentire), 3-8 by 1-4cm, glabrous or pubescent beneath. Flowers yellow-green, in very dense axillary clusters. Fruit purple or black, round or nearly so, 6-11mm.

K7; 1-450m; IV-VIII, XI (V-VI)

Forest margins, (secondary) bushland, littoral thicket. Mmembe-Nembe (SWA), Abubeu (BON), Karro (BOR), Mkalakala (GIR), Muandi (KAM). The fruit is edible.

3. *Bridelia micrantha* (Hochst.) Baill.

Shrub or tree 2-18m; bark grey or blackish, flaking and rough. Trunk and branches often with scattered woody thorns. Leaves elliptic, base cuneate or rounded, apex obtuse or shortly acuminate, margins shallowly crenate or subentire, 6-18.5 by 2.5-6cm, more or less puberulous. Flowers yellow-green, in dense axillary clusters. Fruit purple-black, ellipsoid with a pointed apex, 8-10 by 5-6mm.

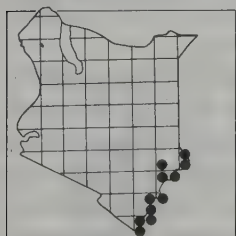
K134567; 1-1950m; I-II, V, IX, XI-XII (XI-XII)

Usually riverine or in forest margins; less often in bushed or wooded grassland.

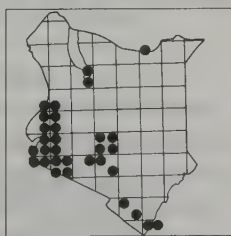
Jajab (BOR), Mdudu (DIG), Mukoigo (KIK), Kuomo-Mutereriet (KIP), Omutarakaranga (KIS), Culdet (LUM), Athuno (LUO), Shikanganya, Kumulondang'ombe (LUH), Olleragia (MAA), Mikwegwe, Mukuengwe (MER), Ngorouet (NAN), Lapironit (SAM). The wood is used for building poles and is termite-resistant. A bark decoction is employed by the Maasai against dysentery in children.

4. *Bridelia scleroneura* Müll. Arg.

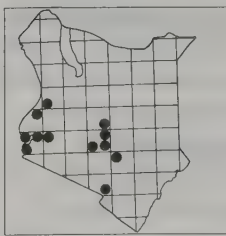
Shrub or tree 2-6m; bark grey, fissured. Leaves elliptic or slightly obovate, base cuneate or rounded, apex obtuse or subacute, margin shallowly crenate or subentire, 3-12 by 2-8cm, more or less puberulous beneath. Flowers yellow-green, in dense axillary clusters. Fruit



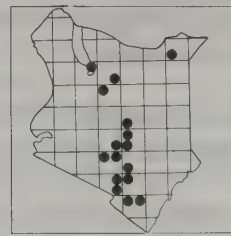
Bridelia cathartica



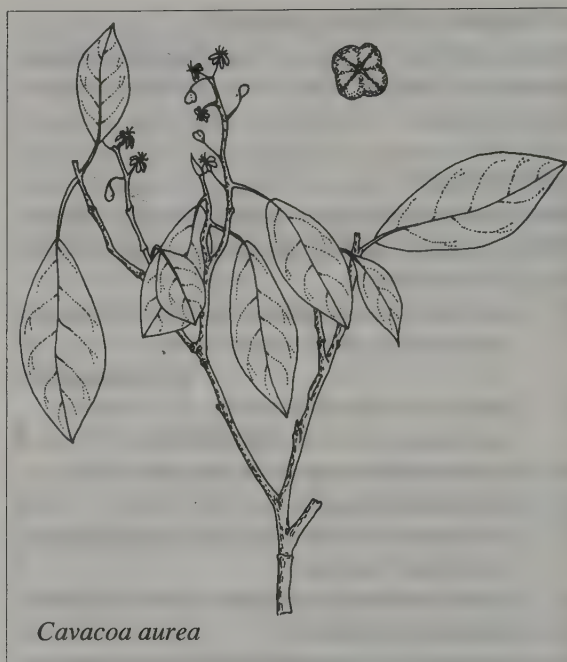
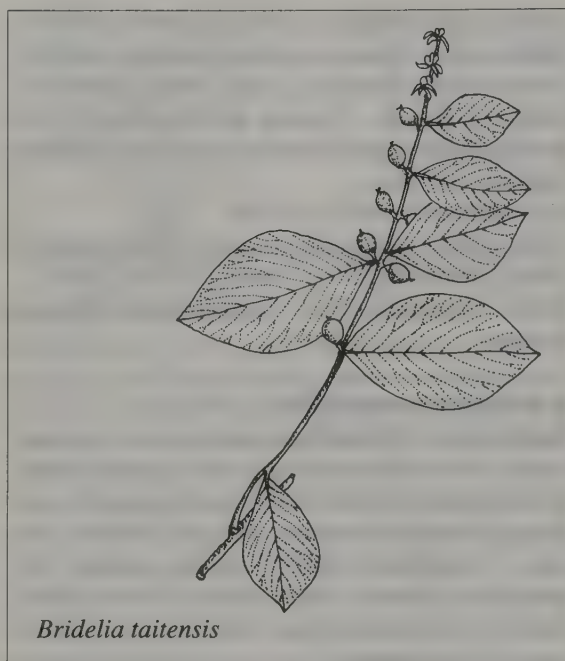
Bridelia micrantha



Bridelia scleroneura



Bridelia taitensis



purple-red to blue-black, round, 6-8mm.

K245; 900-1650m; III, VI-VIII, XII *

Wooded grassland or woodland (often with *Combretum*)

Kapturesut (KIP). The fruit is edible.

5. *Bridelia taitensis* Vatke & Pax

Shrub or tree 1.5-4.5m. Leaves obovate or broadly elliptic, base (broadly) cuneate, apex obtuse to retuse, margins entire or nearly so, 3-7 by 2-6cm, sparsely pubescent beneath. Flowers yellow-green, in dense axillary clusters. Fruit red to purplish to black, rounded or ellipsoid, 7-9mm long.

K1467; 400-1200m; II-III, V-VII, XII. Endemic to Kenya.

Woodland, wooded grassland or dry bushland, especially on rocky hills; below 900m usually in riverine thickets.

Karro (BOR), Muandi (KAM), Lapironit (SAM). The fruit is edible.

7. CAVACOA

Diocious. Inflorescence a terminal raceme.

Cavacoa aurea (Cavaco) J.Léon.

Shrub or tree to 10 m. Leaves elliptic, base cuneate to

obtuse, apex shortly acuminate, 4-11 by 1.7-5.5cm, glabrous or nearly so. Flowers yellow, in few-flowered racemes to 5cm long; petals 7-10mm long. Fruit 3-5-lobed, 1.5cm long, 3cm across.

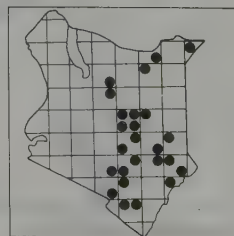
K7; 1-450m; in forest; known from Ribe, Jibana, Kambe, Dzombo, Gongoni and Muhaka.

8. CEPHALOCROTON

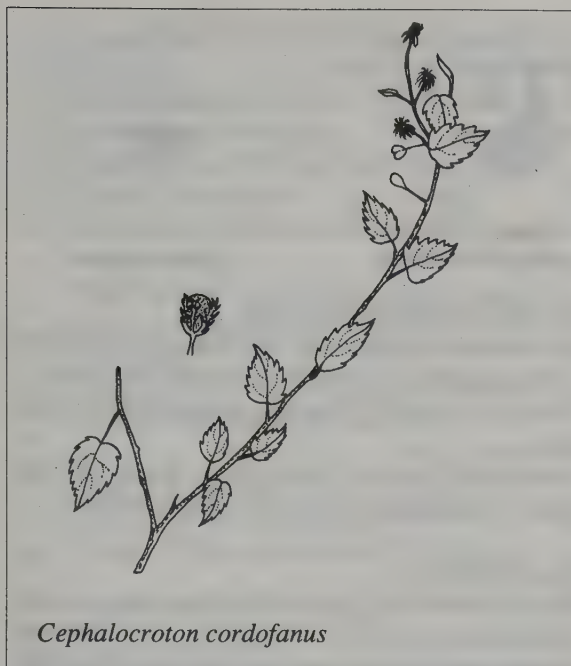
Cephalocroton cordofanus Hochst.

[incl. *C. nudus* Pax & K.Hoffm., *C. scabridus* Pax & K.Hoffm., *C. velutinus* Pax & K.Hoffm.]

Shrub 0.2-2.5m, occasionally scandent to 3m. Leaves alternate, ovate, base rounded or subcordate, apex obtuse or acute, margin dentate-serrate, 2-7 by 1-5cm, more or less stellate-pubescent with some stalked glands to almost glabrous. Flowers monoecious, white or yellow, in dense terminal stalked globular heads of male flowers, with a few female flowers at the base;



*Cephalocroton
cordofanus*



flowers about 2mm. Fruit 3-lobed, about 8 by 12mm. K1467; 1-1200m; I-V, VIII, XI-XII (XI-XII) Wooded or bushed grassland, dry bushland; often on black cotton soil or in seasonally wet grassland along luggas.

Kosaiye (ILW), Kosaie-rea (ORM), Kosaiye-iriad (SOM).

9. CLEISTANTHUS

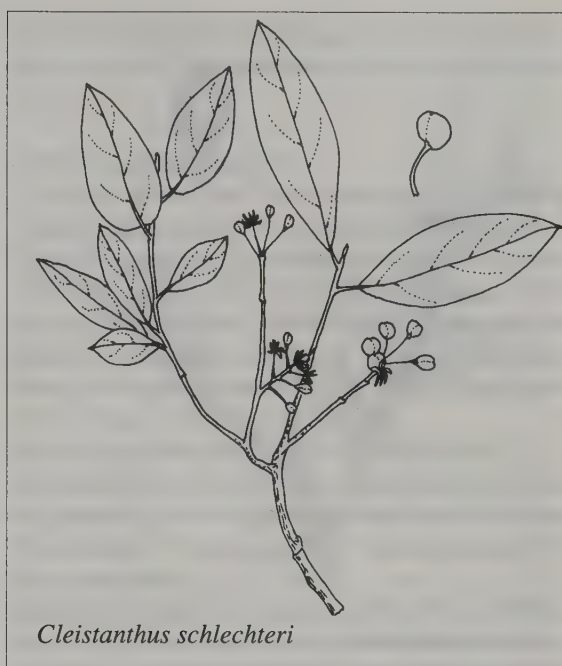
Monoecious. Leaves alternate; inflorescence axillary; petals 5.

- | | |
|---------------------------------------|---------------------------|
| 1. Leaves obtuse or emarginate; coast | 2. <i>C. schlechteri</i> |
| * Leaves acuminate; Central Kenya | 1. <i>C. polystachyus</i> |

NOTE: recently a new species has been found (Luke & Robertson 1934) at Pangani rocks. It is a tree of 12m resembling the Zairese *C. michelsonii*, but differs in the long inflorescence-rachis, to 10cm long.

1. *Cleistanthus polystachyus* Planch.

Shrub or tree 3-18m, the ultimate branches pendulous; trunk fluted; bark flaking. Leaves elliptic, base cuneate or rounded, apex acuminate, 4-16 by 1-6cm, glabrous or nearly so. Flowers yellow-green, in racemes; sepals 5-6mm long. Fruit 3-lobed, 9-12 by 11-13mm.



K4; collected once at Garuweni, NW of Sagana at about 1200m.

Riverine forest.

2. *Cleistanthus schlechteri* (Pax) Hutch.

(*C. holtzii* Pax)

Shrub or tree 3-23m; bark grey, fissured. Leaves elliptic or ovate, base rounded or shallowly cordate, apex obtuse or emarginate, 3-9 by 1-4cm, glabrous but for the midrib. Flowers yellow-green, in short racemes; sepals 4-6mm long. Fruit 3-lobed, 7-8 by 9-13mm.

K7; collected in 1929 near Kwale and in 1987-1990 at Gotani, Mwagongo, Mwena, Mwachi; 1-300m.

Riverine or in dry forest.

Mtazi (SWA).

10. CLUTIA

Usually dioecious. Leaves alternate. Stipules small or absent. Inflorescences axillary, fasciculate; petals 5. Fruit a round capsule, splitting into 3.

- | | |
|--|-------------------------|
| 1. Fruit stalk less than 5mm long; male petals with 2 glands at base | 2. <i>C. robusta</i> |
| * Fruit stalk more than 10mm long; male petals with 1 gland at base | 1. <i>C. abyssinica</i> |



1. *Clutia abyssinica* Jaub. & Spach

[*C. pedicellaris* (Pax.) Hutch., *C. richardiana* Müll. Arg., *C. mollis* Pax]

Shrub 1-3m, rarely to 6m. Leaves (turning orange when drying) ovate or elliptic, base cuneate, apex obtuse or acute, 2-10 by 1-5cm, glabrous to densely pubescent. Flowers yellow-green or greenish cream, in few-flowered fascicles; sepals 2-2.5mm long. Fruit green, turning red, 4.5-5.5mm across.

K1234567; (300-350) 1600-3100m; I-XII

Drier forest types up to the *Hagenia* zone, forest remnants, secondary bushland; also in wooded grassland and in bushland on rocky hills.

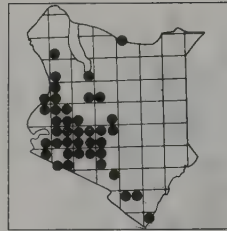
The very hairy plants may be separated as var. *usambarica* Pax & K.Hoffm.

Mutemavengi (KAM), Muthimamburi (KIK), Kur-banyat (KIP), Olgebarinyei (MAA), Chekelel, Ki-oswa, Sitab oin (MAR), Mwendinguku (TAI), Kurrukanya (TUG), Echiato (TUR). A root decoction is used by the Maasai against liver pains.

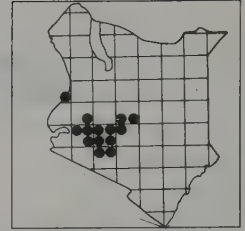
2. *Clutia robusta* Pax

[*C. kilimandscharica* Engl.]

Very much like *C. abyssinica* except for the keyed characters; also the leaves are generally more narrow and to 16cm long.



Clutia abyssinica



Clutia robusta

K3456(7?); 1800-3300m; I-XII

Dry upland forest, bamboo and *Hagenia* zone, heath zone; especially in forest margins and -clearings.

The record from K7 (Kasigau, Joana B 8801) is suspect.

Local names as for *C. abyssinica*. Maasai use the wood for ear plugs, as it is said to heal wounds.

11. CROTON

Mostly monoecious, often with stellate hairs or scales on the leaves. Leaves alternate or subverticillate, simple, usually with 2 glands at the base of the blade; stipules often present but caducous. Inflorescences mostly terminal, racemose, usually with the female flowers below the males, or unisexual. Male flowers with 4-6 petals, females similar. Fruit a dehiscent capsule, 3-parted.

1. Leaves densely silvery-scaly below; leaf margins entire 2
- * Leaves not scaly below; leaf margins (minutely) toothed 8
2. Leaves glabrous above 3
- * Leaves stellate-hairy above, at least near the margins (use lens) 4
3. Leaves more or less whorled; and cuneate at base (rarely rounded) 8. *C. pseudopulchellus*
- * Leaves alternate; and rounded or subcordate at base 13. *C. zambesicus*
4. Leaves stellate-hairy above near margins only 2. *C. dichogamus*
- * Leaves uniformly stellate-hairy 5
5. Petioles 2-5 (-10)mm long 6. *C. menyhartii*
- * Petioles more than 10mm long 6
6. Flowers in 1-3cm long racemes. Fruit less than 1cm long 10. *C. somalensis*
- * Flowers in 6-30cm long racemes. Fruit more than 2cm long 7
7. Leaves with 12-25 lateral nerves. Inland species 5. *C. megalocarpus*

- * Leaves with 6-9 lateral nerves. Coastal species
4. *C. megalocarpoides*
- 8. Leaves penninerved, 3-nerved from base; pubescent on midrib only 1. *C. alienus*
- * Leaves 5-7-nerved from base; pubescence evenly distributed 9
- 9. Fruit more than 2cm long; species at altitudes below 200m 12. *C. talaeporus*
- * Fruit less than 1.1cm long; species at altitudes above 300m (except sometimes *C. polytrichus*) 10
- 10. Leaves glabrous or nearly so when mature; marginal and basal glands similar 11. *C. sylvaticus*
- * Leaves stellate-pubescent when mature; marginal and basal glands different 11
- 11. Petiole 1.5-1.1cm; racemes 15-32cm long 3. *C. macrostachyus*
- * Petiole less than 5cm; racemes 3-12cm long 12
- 12. Sepals 1mm wide 7. *C. polytrichus*
- * Sepals 2mm wide, growing to 5mm wide in fruit 9. *C. scheffleri*

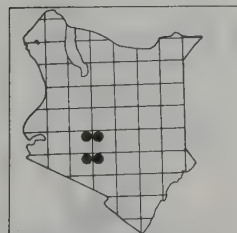
1. *Croton alienus* Pax RARE, ?VULNERABLE

Shrub or tree 1.2-4.5m, monoecious or dioecious. Young twigs stellate-pubescent. Leaves elliptic or slightly (ob)ovate, base rounded or cuneate, apex obtuse (acute), margin (faintly) denticulate, 5-13 by 1.5-5.5cm, glabrous except for the stellate-pubescent midrib. Flowers greenish-white or green, in 2-11.5cm long racemes (all male, all female, or mixed) about 2mm long. Fruit dark red or black, trilobed-ellipsoid, about 10 by 8mm.

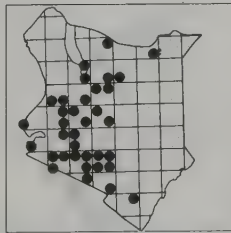
K45; 1450-1950m; I-III, V, IX-XII

Dry upland evergreen forest or secondary forest, often associated with *Brachylaena* and *Croton megalocarpus*.

Musenja (KAM), Muthenia, Nduriri (KIK), Keleluet (TUG).



Croton alienus



Croton dichogamus

Note. The record for Kakamega is very remote from all other records; also the habitat seems to be quite different.

2. *Croton dichogamus* Pax

Shrub or small tree 1-7m. Leaves silvery beneath, turning orange before dropping, aromatic, elliptic or ovate, base rounded, apex obtuse or acute (acuminate), 2-10 by 1-4cm (20 x 8.5), (sub) glabrous above, silvery-scaly beneath. Flowers yellowish, about 2mm long, monoecious in 2-4(6)cm long racemes, sometimes with male flowers only. Fruit goldenbrown, three-lobed, 6-7 by 5-7mm, scaly.

K1234567; 500-2100m; I-II, IV-VII, IX-XII

Dry bushland, especially on rocky soils or slopes; also in thickets, *Acacia-Euphorbia* woodland, dry upland forest edges. Very common in places, especially in disturbed sites.

Mokhof (BOR), Mookofe (GAB), Kireru/Mukinduri (KIK), Muthiani (KAM), Kelelwet (KIP), Angin/Rachar (LUO), Ol-logerdangai (MAA, SAM), Mwarula (Mijikenda), Lageridingai (SAM), Gobole (SOM), Kekelwa (TUR, PKT). Used in hut construction; Maasai use the roots to flavour food, and stems in the preparation of mead; Samburu use the plant in stomach medicine.

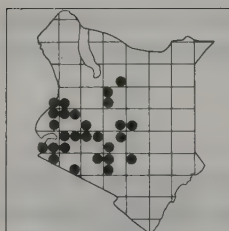
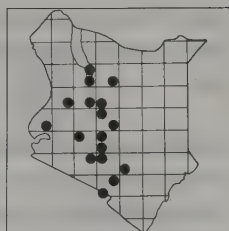
3. *Croton macrostachyus* Del.

Tree 3-25m; bark grey or greybrown, finely reticulate. Leaves turning orange before falling, ovate, base (sub)cordate (rounded), apex acuminate, margin crenulate-serrulate or subentire, 5-19 by 3.5-15cm, stellate-hairy but more densely so beneath (and fulvous when young). Flowers yellowish, to 3.5mm long, in 15-32cm long racemes; the flowers in clusters, either all male or all female or mixed, dioecious or monoecious. Fruit grey, trilobed, 8-9 by 8-10mm, stellate-pubescent.

K123456; 1350-2250m; I-VII, IX, XI-XII (IV-VI)

Moist or dry evergreen upland forest (remnants, edges); also riverine forest or woodland, wooded grassland or clump bushland.

Mukanisa (BOR), Kitundu (KAM), Mutundu (KIK, MER), Tebeswet (KIP, NAN, TUG), Ngong'Ngo' (LUO), Musutsu (LUH), Orkeparlu (MAA), Taboswa, Toboswa (MAR), Mfirifiri (TAI, TAV). The wood is used for making stools or axe handles; roots are used as a remedy for stomach worms by the Maasai, burnt

*Croton macrostachyus**Croton megalocarpus*

leaves are used by the Luhya as cough remedy, a root decoction is used against malaria by the Kikuyu and leaf juice improves wound clotting.

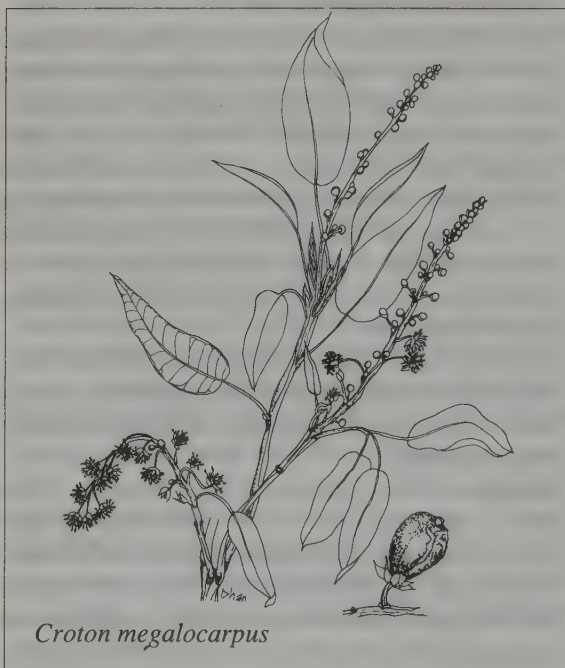
4. *Croton megalocarpoides* Friis & Gilbert RARE Shrub or tree to 8m; bark grey and scaly. Leaves silvery beneath, ovate (elliptic), base cordate or subtruncate, apex (bluntly) acuminate, 3.8-9 by 2-5.5cm, stellate-hairy above, densely scaly beneath. Flowers to 3.3mm long, in up to 19cm long racemes, monoecious. Fruit subglobose, trilobed, 20 by 22-25mm, scaly.

K1/7,7; 1-50m; IV *

Thick wooded deciduous bushland: Kiunga area near Somali border, and possibly at Diani.

5. *Croton megalocarpus* Hutch.

Tree 6-36m; bole straight, crown flat; bark grey or pale

*Croton megalocarpus*

brown, longitudinally fissured. Leaves silvery beneath, ovate or elliptic, base subcordate, rounded or subcuneate, apex acuminate, 5-15 by 2-8cm, stellate-puberulous above, densely scaly beneath. Flowers yellowish, to 5mm long, in 7.5-30cm long racemes, monoecious or dioecious. Fruit obovoid or subglobose, 2-4 by 1.5-3cm, scaly.

K13456; 900-2100m; I, III-V, VII, X-XII *

Dry upland evergreen or semi-deciduous forest, occasionally dominant; also in moist upland forest, dense woodland (especially riverine or near springs) and scattered tree grassland.

Musine (STAND, LUH), Nyapo, Napo (BOR), Nyaap'po (GAB), Muthulu, Kithulu (KAM), Mukinduri (KIK, MER), Ol-mergoit (MAA), Masineitet (NAN), Lameruguet, Marakuget (SAM), Mukigara (TAI), Ortuget (TUG). Used in house building and as firewood; also a hedge plant.

6. *Croton menyhartii* Pax

Shrub 1.2-5m, with several stems and virgate branches. Leaves silvery beneath, turning orange when old, ovate, base rounded or subcordate, apex obtuse or emarginate, 2-7 by 1-3cm, thinly stellate-pubescent above, densely scaly beneath. Flowers yellowish, about 2mm long, monoecious, in 1-3(5)cm long racemes. Fruit yellowish with black spots, trilobed, 6-7 by 7-9mm.

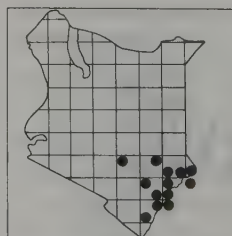
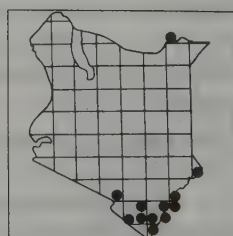
K147; 1-600m; I, III-IV, VII, IX *

Aloe-Sansevieria thickets and bushland varying from *Terminalia-Combretum* type to dune bushland.

Khobole (BOR, SOM), Miama Wanyika (GIR), Alkadhi (PKM), Cashinaada (SOM). Pokomo inhale the smoke of burnt leaves against pregnancy pains and menstrual pains.

7. *Croton polytrichus* Pax

Small tree or (semi-scandent) shrub 3-7.5m. Leaves ovate, elliptic or obovate, base rounded or subcordate,

*Croton menyhartii**Croton pseudopulchellus*

apex shortly acuminate (curved to one side), margin minutely glandular-toothed, 5-9 by 3-7cm, densely stellate-tomentose. Flowers yellowish, about 2mm long, monoecious, in up to 12cm long racemes. Fruit brownish, trilobed, about 6 by 6mm.

K67; 1-950m; - *

Bushland: Ngulia, Dzombo Mt, Boni.

8. *Croton pseudopulchellus* Pax

Shrub or small tree 1-6m; bark rough, brown or pale grey. Leaves subverticillate, silvery beneath, dotted with brown, elliptic, base cuneate or less often rounded, apex obtuse, emarginate or acute, 2.5-8.5 by 1-3.3cm, glabrous above, densely scaly beneath. Flowers white, to 3mm long; monoecious, sometimes dioecious in globular clusters to 1cm across. Fruit silvery-green flecked with brown, trilobed, 6 by 6mm.

K167; 1-1050(1800)m; I, IV-XI

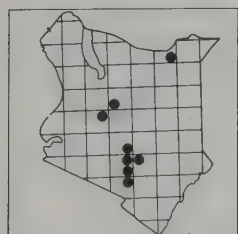
A common understory shrub of the drier lowland forests or woodlands, e.g. *Brachystegia* and *Brachylaena-Cynometra* types; also common in parts of coastal evergreen bushland; also in rocky bushland inland.

Mkunapaa (SWA), Barranad (BON), Mogof (BOR), Msandusi (DUR), Myama, Muyama (GIR), Keirtets (SAN), Xobole (SOM).

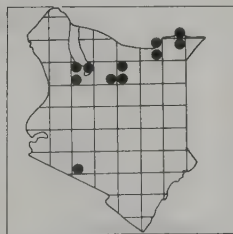
9. *Croton scheffleri* Pax

Shrub 1-3.5m (outside Kenya also reported as a tree to 12m); bark brown, fissured. Leaves broadly ovate, base cuneate or rounded, apex acuminate, margin serrulate, 3-10 by 2-7cm, densely stellate-pubescent and later sparingly so. Flowers cream or greenish, to 3mm long, monoecious, in 3-10cm long racemes (either all male or with a few female flowers at base). Fruit round to 3-lobed, about 5 by 7mm, stellate-pubescent. K14; 800-1600m; III-V, XI-XII *

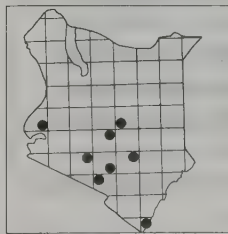
Dry bushland (and there locally common), riverine, in groundwater forest, or in dwarf shrub grassland. Malula (KAM).



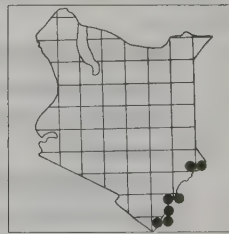
Croton scheffleri



Croton somalensis



Croton sylvaticus



Croton talaeporos

10. *Croton somalensis* Vatke & Pax

Shrub 1-3m (once reported as slightly scandent). Leaves silvery beneath (sometimes with brown spots), turning orange when old, ovate, base rounded or subcordate, apex obtuse or acute (acuminate), 1.5-7 by 0.8-5cm, thinly stellate-pubescent above, densely scaly beneath; scales resembling flattened star-hairs. Flowers yellowish, about 2mm long, monoecious or dioecious, in up to 1 (3)cm long racemes. Fruit trilobed-subglobose, about 6 by 7mm, scaly.

K16; 400-1250m; V-VI, VIII, XI-XII *

Acacia-Commiphora bushland, often on limestone or lava.

D'irri (BOR, GAB), Olchani-Lorpurkel (MAA). Used in house construction; root decoction used by Maasai as remedy for influenza and malaria.

11. *Croton sylvaticus* Hochst.

Tree 3.5-24m; bark smelling of black pepper, grey, smooth. Leaves (broadly) ovate, base cuneate, rounded, or subcordate, apex acuminate, margin glandular, crenate-serrate, 6-14 by 3-11cm, densely stellate-pubescent at first, later becoming subglabrous or sparsely pubescent beneath. Flowers greenish-cream, to 3mm long, monoecious, in racemes 10-30cm long (all male, mixed, or all female). Fruit orange or red, trilobed-subglobose or ovoid, 7-11 by 5-10mm, stellate-pubescent.

K34567; 350-1750m; III-IV, VI, XII *

Moist evergreen forest, rarely in dry evergreen forest. Mtsunduzi (DIG), Mutundu (KAM, KIK, MER), Musudu/Munamaliru (LUH). A timber tree; parts are used against malaria.

12. *Croton talaeporos* Radc.-Smith

[*C. sp. near sylvaticus* of KTS]

Shrub or small tree 2-10m; bark grey, fissured. Leaves (broadly) ovate, base rounded or subcordate, apex acuminate or obtuse (emarginate), margin crenate or

crenate-serrate, 4-16 by 3-15cm, sparsely stellate-pubescent but later glabrous. Flower white or yellowish, 2-3mm long, monoecious or dioecious, in 8-20cm long racemes (all male or mixed). Fruit red or brown, subglobose or subtrilobed, 20-28 by 22-25mm, stellate-pubescent.

K7; 1-200m; I, III-IV, XII *

Wooded grassland, woodland or bushland of coastal plains. Very common around Kiunga.

Msinduzi (SWA), Kimili (BOR), Keireteta (SAN), Mandrui (BON). Roots are used as a remedy for colds and stomach complaints.

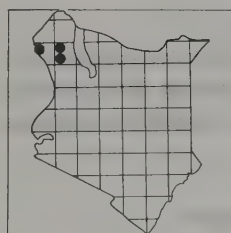
13. *Croton zambezicus* Müll. Arg.

Tree 4-8m, foliage characteristically stratified; bark smooth or rough, grey. Leaves silvery beneath (occ. brown-flecked), elliptic, base rounded or subcordate, apex acute, obtuse, or shortly acuminate, 5-12 by 1.5-4cm, glabrous above, densely scaly beneath. Flowers yellowish, to 2.5mm long, monoecious or dioecious, in (1.5) 3-6cm long racemes (mixed or occasionally all male). Fruit subtrilobed, about 9 by 10mm, densely scaly.

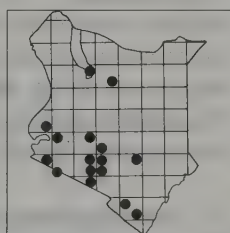
K2; 750-1600m; II-III, V *

Only collected three times; on shallow rocky soils and by stream-beds.

Elakas (TUR).



Croton zambezicus



Drypetes gerrardii

12. DRYPETES

Usually dioecious. Leaves alternate, often asymmetrical at base. Flowers in fascicles; petals absent. Fruit a drupe.

1. Coastal species from altitudes below 500m 2
- * Inland species from altitudes above 900m 5
2. Leaf margin sharply toothed; flowers on older wood 3
- * Leaf margin entire or with a few distant teeth; flowers axillary to leaves 4
3. Flowers on trunk and branches, on stalks less

than 1cm long

2. *D. natalensis*

- * Flowers on main trunk only, on stalks more than 2cm long

5. *D. usambarica*

- 4. Leaves 3-7 by 1.5-4cm, with asymmetric base; petiole 1-3mm

3. *D. parvifolia*

- * Leaves 5-12 by 2-8.5cm, with symmetric base; petiole 4-8mm

4. *D. reticulata*

- 5. Leaf margin with a few small teeth; flowers axillary to leaves

1. *D. gerrardii*

- * Leaf margin sharply toothed; flowers on old wood

2. *D. natalensis*

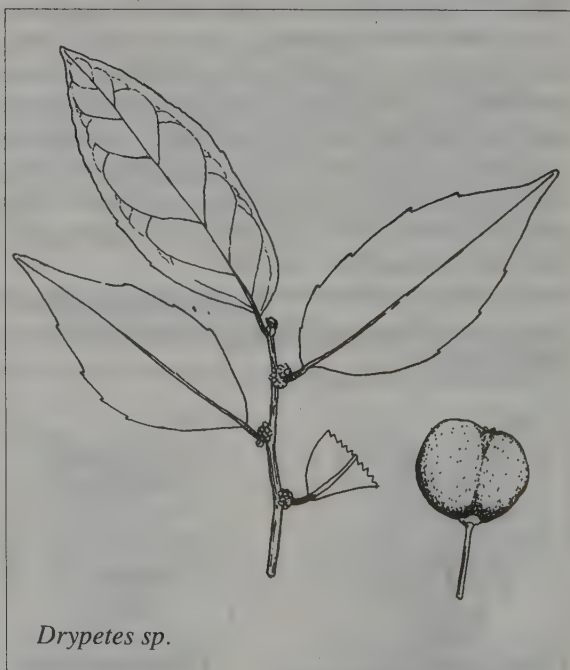
1. *Drypetes gerrardii* Hutch.

Tree 5-15m; bark light or dark grey, smooth. Young leaves red; leaves ovate or elliptic, base cuneate (usually unequal, sometimes one side rounded), apex acute to acuminate, margin remotely crenate-dentate (rarely completely entire), 5-12 (15) by 3-6cm, glabrous. Flowers yellow, axillary; sepals about 2mm long. Fruit golden brown, round and usually somewhat bilobed, 10-15mm across.

K134567; 600-2100m; I, III, V-VI, X-XII

Dry (or less often moist) upland forest or riverine forest.

For the purpose of this book I see this as a single, slightly variable species.



Drypetes sp.

Munya (KIK), Manamakulu, Sinamagulu (LUH), Ol-Durdien (MAA), Ikalai, Lcheniioibor (SAM). Wood white, heavy.

2. *Drypetes natalensis* (Harv.) Hutch.

Shrub or tree 3-12m; bark smooth, grey, with knobs and 'eyebrows' from which flowers and fruits appear. Leaves elliptic, base symmetric (usually one side cuneate, one side rounded), apex bluntly acuminate, margin sharply serrate (rarely subentire), 9-20 by 4-8.5cm, glabrous. Flowers cream with a purple centre(?), in fascicles on bosses on older wood; sepals 4-4.5mm long. Fruit yellow or orange, round, to 2.7 by 3cm.

- var. *natalensis* (ovary and fruit hairy)

K4; 900-1450m; - *

(Riverine) forest.

- var. *leiogyna* Brenan (ovary and fruit glabrous)

K7; 1-450m; I-IV, X-XII

Evergreen forest, riverine forest, littoral thicket.

Mgandama, Msunduri (SWA, GIR), Katadon (BON), Mfidjofidjo (DIG), Mwadama (ILW), Soduluwage (SAN).

3. *Drypetes parvifolia* (Müll. Arg) Pax & K.Hoffm.

[*D. sp. nov.* of KTS]

Shrub or tree 1-6m. Leaves ovate, base asymmetric, rounded and cuneate, apex acuminate, margins entire or with a few distant teeth, 3-7 by 1.5-4cm, glabrous. Flowers yellowish, in axillary fascicles; sepals about 3mm long. Fruit yellow to orange, round, 13-18mm across.

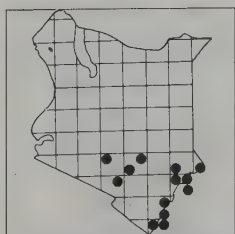
K7; 1-200m; VII-VIII, X-XII *

Semi-deciduous forest, occasionally on limestone outcrops.

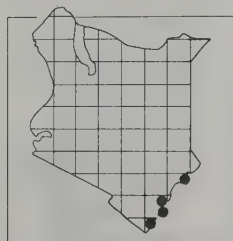
Mbage na Mbage (SWA). Used for building poles.

4. *Drypetes reticulata* Pax

Tree 4-12m; bark smooth, yellow-green. Leaves elliptic or ovate, base cuneate or rounded (symmetric),



Drypetes natalensis



Drypetes parvifolia

apex obtuse or (bluntly) acuminate, margins entire, 5-12 by 2-8.5cm, glabrous. Flowers cream or yellow-green, in axillary fascicles; sepals about 2mm long. Fruit reddish brown, more or less round, slightly bilobed, 8-12mm across.

K7; 1-750m; III-IV, XI-XII *

Evergreen or semideciduous forest or on exposed coral.

5. *Drypetes usambarica* (Pax) Hutch.

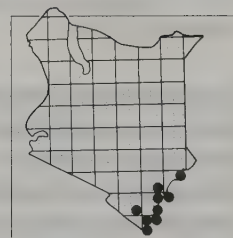
var. *mrirae* Radc.-Sm. RARE, ?ENDANGERED

Tree 8-12m. Leaves elliptic, base asymmetric (cuneate/rounded to subcordate), apex bluntly acuminate, margins sharply serrate, 7-14 by 2.5-6cm, glabrous. Flowers pale yellow (?), long-stalked in fascicles on the main trunk; sepals 2-4mm long. Fruit unknown.

K7; 1-400m; * (endemic to Mrima, Kaya Kambe and Kaya Kinondo to near Arabuko-Sokoke)

Moist forest.

Note. Luke & Robertson 250 has densely hairy fruits, and so should be called var. *trichogyna* A.R.Smith; collected in Shimba Hills at 380m.



Drypetes reticulata

13. ERYTHROCOCCA

Diocious shrubs. Leaves alternate, with (usually) persistent stipules. Inflorescence axillary, fasciculate or shortly racemose. Flowers small, petals absent. Fruit of 1-3 cocci, green, dehiscent to show the orange or red seed-aril.

- | | |
|--|-------------------------|
| 1. Leaves pubescent beneath | 2 |
| * Leaves beneath glabrous or nearly so | 4 |
| 2. Moist forest species | 8 |
| * Bushland, woodland or wooded grassland species | 3 |
| 3. Leaf margin toothed | 1. <i>E. atrovirens</i> |
| * Leaf margin entire | 5. <i>E. menyhartii</i> |
| 4. Flowers in lax racemes (Shimba Hills) | 8. <i>E. usambarica</i> |
| * Flowers in dense single clusters | 5 |

5. Flower clusters (sub) sessile 6
 * Flower clusters on a stalk more than 5mm long 7
6. Stipules often spiny; widespread 2. *E. bongensis*
 * Stipules not spiny; Coast province only 4. *E. kirkii*
7. Inland species found above 1400m 3. *E. fischeri*
 * Coastal species found below 500m 6. *E. pubescens*
8. Coastal species; monoecious 8. *E. sp. C*
 * Inland species; dioecious 7. *E. trichogyne*

1. *Erythrococca atrovirens* (Pax) Prain

Shrub 1.5-3m. Leaves ovate or elliptic, base cuneate, apex acuminate, margin irregularly crenate-serrate, 8-13 by 3-7cm, short-pubescent beneath. Flowers greenish yellow, in pendulous racemes to 4cm long. Fruit green, 2-lobed, the lobes 4-6mm across.

K5; 1450-1750m; III, XII *

Riverine bush or wooded grassland (Bukura, Nandi Hills, Ngoina)
 Shirietso (LUH).

2. *Erythrococca bongensis* Pax

Shrub or tree 1-4(6)m; bark pale brown, flaking in small sections; pairs of small (-3mm) spines sometimes present at the nodes. Leaves ovate or elliptic, base cuneate, apex obtuse (acute), margins (irregularly) crenate-serrate, 1-9 by 0.5-4.5cm, glabrous (except in young leaves). Flowers yellow-green in short dense bunches. Fruit yellow to red, 3-lobed (or less by abortion), the lobes 3-4mm across.

K1234567; (50) 900-2100m; I-XII

Dry forest, riverine bushland/woodland/thicket, bushed grassland (secondary?) or (secondary) bushland in rocky sites.

Muharangare (KIK), Kuisitiet (KIP), Shiriedzo



Erythrococca

(LUH), Enduleleindu (MAA), Nitatumba (SOM), Itulelei, Lechapirik (SAM), Kipkariss (TUG), Ekoromwai (TUR). The Maasai use a leaf infusion or decoction to treat swellings in cattle; the branches are used to make arrow shafts.

3. *Erythrococca fischeri* Pax

Very similar to *E. bongensis*, but with the flowers in stalked inflorescences.

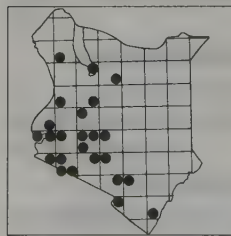
K123456; 1500-2300m; II, IV, VI, VIII, X-XI *

Drier upland forest types and riverine forest or thicket; also in groundwater woodland.

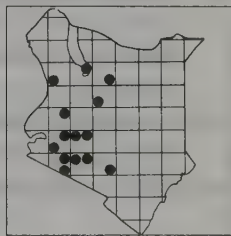
Chesiseiyey (KIK), Endulelei-Endim (MAA). Used to make arrow shafts.

4. *Erythrococca kirkii* (Müll. Arg.) Prain

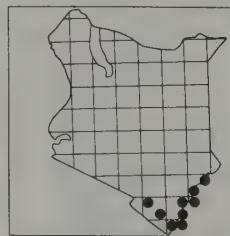
(Scandent) shrub 1-3.5m. Leaves ovate or elliptic,



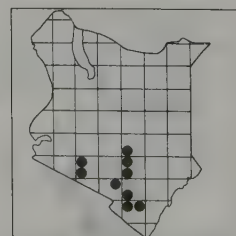
Erythrococca bongensis



Erythrococca fischeri



Erythrococca kirkii



Erythrococca menyhartii

base cuneate, apex bluntly acuminate, margins crenate, 3-12 by 1-6cm, glabrous or nearly so. Flowers greenish white, in dense clusters to 2cm. Fruit 1-3 lobed, the lobes 3-4mm across.

K7; 1-1000m; I-V, VIII-IX, XI *

Moist or dry forest margins and secondary bushland; also in semi-evergreen bushland.

Mgomberree (SWA), Umarere (DIG), Dawa ushingo (ILW), Mteru (TAV). The leaves are used as a vegetable.

5. *Erythrococca menyharthii* (Pax) Prain

Shrub 1-3m. Leaves bunched on very short shoots on older wood, spaced on youngest twigs; leaves ovate or elliptic, base cuneate, apex acute or bluntly acuminate, margins entire or nearly so, 1-8 by 0.4-2.5cm, scabridulous-pubescent beneath. Flowers greenish, often appearing with very young leaves, in dense (but racemose) clusters (male) or few-flowered racemes (female). Fruit usually 3-lobed, the lobes about 5mm. K3467; 500-1850m; I, XI-XII *

Semi-evergreen bushland or woodland, especially on rocky sites.

6. *Erythrococca pubescens* Radc.-Sm. RARE

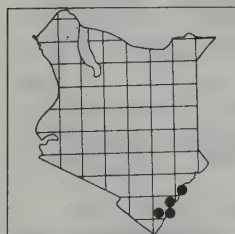
Much-branched shrub, 1-3m. Spines in pairs at the nodes, 1-5mm long. Leaves on older wood in bunches on short shoots, spaced on young twigs, ovate or obovate, base cuneate or obtuse, apex obtuse or rounded, margin shallowly crenate or subentire, 1.5-4.5 by 1-3cm, glabrous or nearly so. Flowers greenish, in shortly stalked clusters. Fruit 1-lobed (always?), 4-4.5mm across.

K7; 1-500m; IX-X *

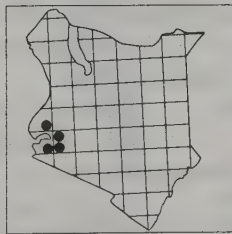
Dry bushland. Endemic to Kenya.

7. *Erythrococca trichogyne* (Müll.Arg.) Prain

Shrub 1-3m. Leaves ovate or elliptic, base cuneate, apex (bluntly) acuminate, margin crenate-dentate, 2-



Erythrococca pubescens



Erythrococca trichogyne

10 by 1-5cm, somewhat pubescent beneath. Flowers cream, in several-flowered racemes. Fruit 2-lobed, the lobes 3-4.5mm across.

K5; 1550-2050m; I-II, IX-XI *

Moist forest (margins and clearings) and riverine forest.

8. *Erythrococca usambarica* Prain

Shrub 1-2.5(8?)m. Leaves ovate to elliptic, base cuneate, apex acuminate, margins distantly crenate-dentate, 5-12 by 2-5cm, glabrous and slightly glandular. Flowers greenish cream, in rather lax racemes. Fruit 1-3-lobed, the lobes 4-5mm across.

K7; 50-400m; IV, IX, XI-XII *

Moist forest in Shimba Hills and at Buda.

9. *Erythrococca* sp. C of FTEA ENDANGERED

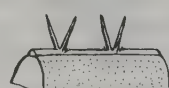
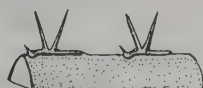
Shrub to 1.5m. Leaves narrowly elliptic, base cuneate, apex obtusely acuminate, 3-7 by 0.5-3cm, sparsely pubescent. Flowers in interrupted racemes; the only monoecious *Erythrococca*. Fruit 3-5-lobed, topped by 3-5 styles. Faden 77/254

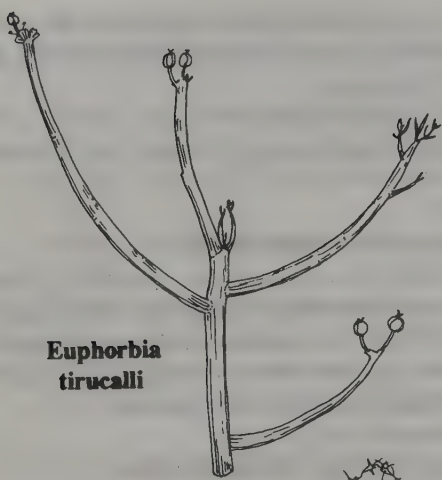
K7, moist coastal forest: Buda, Pangani.

14. EUPHORBIA

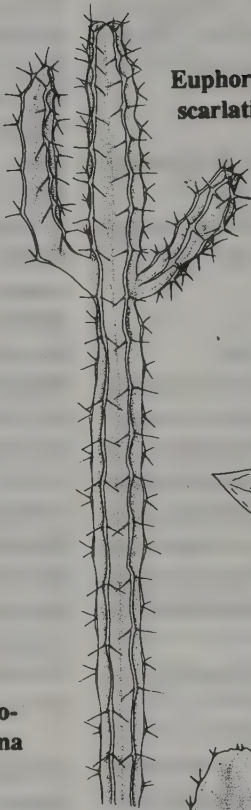
Extremely variable plants. The only really consistent features are the presence of white latex, the flowers and fruits. The 'flower' or cyathium consists of stamens (each stamen representing a male flower) with a central ovary (a female flower), surrounded by (2-)5(-8) glands, and usually subtended by bracts. Fruit a 3-celled capsule.

- | | |
|--|----------------------------|
| 1. Plants spiny | 2 |
| * Plants unarmed | 19 |
| 2. Branches woody, ending in a spine, no other spines present | 3 |
| * Spines along the succulent branches | 4 |
| 3. Branches alternate | 9. <i>E. cuneata</i> |
| * Branches 3-forked | 24. <i>E. matabelensis</i> |
| 4. Spines single, forked near the tip | 37 |
| * Spines in pairs | 5 |
| 5. Horny spine shields clearly separate; trees | 6 |
| * Horny spine shields continuous or nearly so; trees or succulent shrubs | 11 |

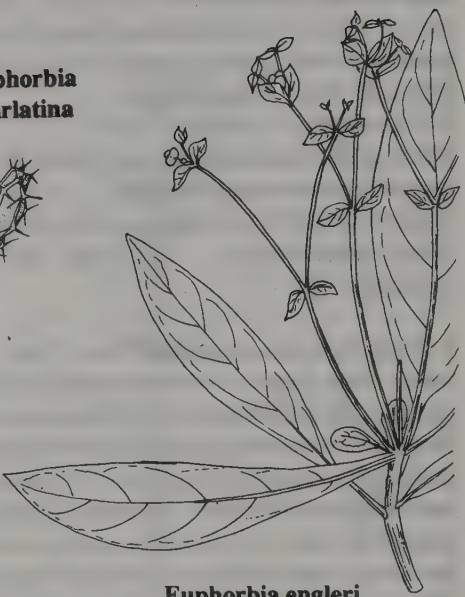




**Euphorbia
tirucalli**



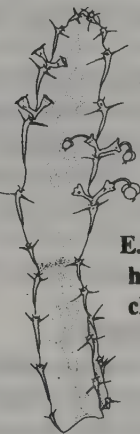
**Euphorbia
scarlatina**



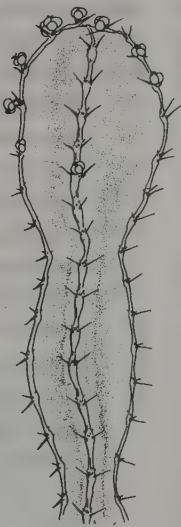
Euphorbia engleri



**Euphorbia
gossypina**



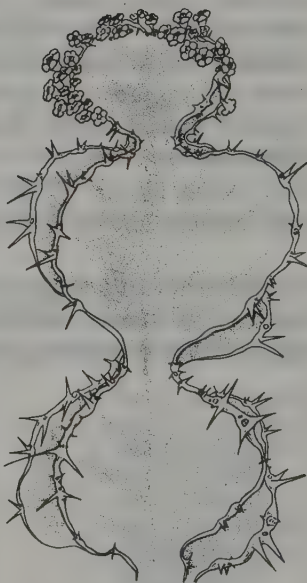
**E.
hetero-
chroma**



E. quinquecostata

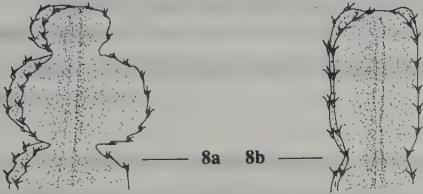


E. nyikae



E. bussei

6. Ultimate branches less than 2.5cm across 7
 * Ultimate branches 2.5-13cm across 8
 7. Spines straight, 3-6mm long; on limestone and coral near Mombasa 39. *E. wakefieldii*
 * Spines recurved, to 10mm on young branches; in dry bushland 30. *E. robecchii*
 8. Branches deeply constricted into segments 9



- * Branches hardly segmented 10
 9. Ultimate branches to 13cm wide; leaves persistent on young growth, 3-13cm long 37. *E. obovalifolia*
 * Ultimate branches to 6cm wide; leaves quickly deciduous, to 1cm long 10. *E. cussonoides*
 10. Branches 4-5-winged; flowers yellow-green; widespread 7. *E. candelabrum*
 * Branches 5-6-winged; flowers red; Witu forest 33. *E. tanaensis*
 11. (Climbing) shrubs, the branches up to 4cm wide 12
 * Trees, or if somewhat shrubby, then with branches more than 6cm wide 14
 12. Spines inconspicuous, to 1mm long 8. *E. cryptospinosa*
 * Spines 3-15mm long 13
 13. Erect shrub with branches to 4cm wide; flowers yellow-green 38
 * Semi-scandent shrub with branches up to 2cm wide; flowers red 19. *E. heterochroma*
 14. Branches deeply constricted to form segments, more than 3cm across 15
 * Branches hardly segmented, up to 2cm across; spines 2-9mm long 29. *E. quinquecostata*
 15. Branches to 6cm across, 4-6-angled 1. *E. adjurana*
 * Branches to 15cm across, 2-5-angled 16
 16. Spines 3-7cm long; trees to 6m 4. *E. breviarticulata*
 * Spines 0.3-3.5cm long; trees to 12m 17
 17. Horny margins of spine-shields <1 mm wide

26. *E. nyikae*
 * Horny margin of spine-shield >1.5 mm wide 18
 18. Branches 3-4-winged; fruit deeply lobed, 9 by 19 mm 5. *E. bussei*
 * Branches 4-5-winged; fruit shallowly lobed, 12 by 22-25 mm 23. *E. magnicapsula*
 19. Branches succulent 20
 * Branches woody 26
 20. Branches 2.5-6cm across, constricted into segments; large tree 10. *E. cussonoides*
 * Leaves present on young growth, usually more than 1cm long 21
 21. Leaves present on young growth, usually more than 1 cm long 22
 * Leaves absent, or less than 1cm long 23
 22. Leaves 7-20 by 1-4.5cm; cyathea 3-8cm across 15. *E. friesiorum*
 * Leaves smaller; cyathea < 1cm across 44
 23. Branches less than 1cm across; shrubs or trees to 6m 24
 * Branches 1-2.5cm across; trees 5-10.5m 30. *E. robecchii*
 24. Branches cylindrical; flowers yellow, in terminal clusters 25
 * Branches 5-8-ribbed; flowers red, in axillary cymes 8. *E. cryptospinosa*
 25. (Climbing) shrubs, 1-3m, from northern Kenya; flowers in umbels 6. *E. calamiformis*
 * Shrub or tree 3-6m, from West/Central/Southern Kenya; flowers in short clusters 36. *E. tirucalli*
 26. Leaves and flowers present at the same time 27
 * Flowers present when leaves are absent 34
 27. Leaves pubescent 28
 * Leaves glabrous or nearly so 30
 28. Leaves panduriform; often with obtuse base; bracts cream 29



28a panduriform (violin-shaped)

- * Leaves obovate, with attenuate base; bracts green 32. *E. scheffleri*
 29. Cyathea (flower cups) glabrous; Lamu area 21. *E. jatrophoides*
 * Cyathea pubescent; Kulal and south of Ewaso Nyiro 22. *E. joyae*

30. Forest (margin) species 31
 * Bushland/woodland species 34
 31. Leaves obovate, with rounded or acute apex;
 fruit > 10mm across 32. *E. scheffleri*
 * Leaves elliptic, with acute apex; fruit up to 6mm
 across 32
 32. Leaves acute at apex 33
 * Leaves with thread-like apiculate apex
 11. *E. engleri*
 33. Central Kenya (Mau, Aberdares, Mt. Kenya);
 bracts with overlapping margins 37. *E. ugandensis*
 * Taita Hills; bracts not overlapping
 38. *E. usambarica*
 34. Involucres (single group of cyathea, looking like
 a single flower) solitary along branchlets
 13. *E. espinosa*
 * Involucres terminal, usually in groups of 3 or
 more 35
 35. Glands of involucre entire; fruit to 5mm across
 28. *E. polyantha*
 * Glands divided into 4 or more hair-like proc-
 esses; fruit to 23mm across 36
 36. Bracts of involucre large, to 5cm across
 15. *E. friesiorum*
 * Bracts of involucre to 1cm across
 32. *E. scheffleri*
 37. Spineshields separate 14. *E. fluminis*
 * Spineshields (almost) continuous
 16. *E. glochidiata*
 38. Stems and branches not constricted 43
 * Stems and branches constricted at intervals 39
 39. Branches 4-5-angled, 1-2cm thick; longest spines
 6-8 (-10)mm 40
 * Branches 4-6 (-8)-angled, 1.5-4cm thick; longest
 spines 10-15mm 41
 40. Branches 4-5-angled; fruit red
 20. *E. heterospina*
 * Branches 4-angled; fruit brown
 3. *E. borenensis*
 41. Shrub with spreading branches from the base
 35. *E. tescorum*
 * Shrub much-branched 42
 42. Branches (4-) 5-6-angled; fruit dark red
 31. *E. scarlatina*
 * Branches 4-5 (-6)-angled; fruit reddish black
 2. *E. atroflorea*
 43. Branches 3-6-ribbed; fruit sessile; Ramu area

12. *E. erlangeri*
 * Branches 4-angled; fruit on a 2mm long stalk
 34. *E. tenuispinosa*
 44. Leaves persistent, obovate, with rounded apex
 17. *E. goetzei*
 * Leaves not persistent, when present not obovate
 but elliptic 45
 45. Flower heads >10mm in diameter; branchlets
 more or less parallel to main branches
 25. *E. nubica*
 * Flower heads <8mm; branchlets spreading
 18. *E. gossypina*

1. *Euphorbia adjurana* Bally & S. Carter

Tree 3-7m. Branches succulent, the older ones pendu-
 lous, the young ones erect. Branches 4-6-angled,
 constricted into segments, up to 6cm across. Spinesh-
 ields on edges of angles continuous, with spines to
 15mm long. Leaves about 2mm long, quickly decidu-
 ous. Flowers yellow-green, in short cymes. Fruit
 crimson, 3-lobed, 7.5 by 12.5mm.

K1; 700-1300m; I, VI *

Bushland on rocky hills.

2. *Euphorbia atroflorea* S. Carter

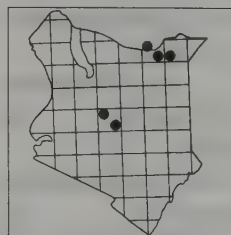
Succulent shrub, erect, to 2.5m. Branches 4-5 (-6) -
 angled, 2-3cm thick, constricted into segments. Spi-
 neshields continuous, with spines to 10mm long.
 Flowers yellowish red to crimson, in solitary 1-forked
 cymes. Fruit reddish black, 3-lobed, 3.5 by 5.5mm.

K147; 900-1800m; I, VI-VII, X*

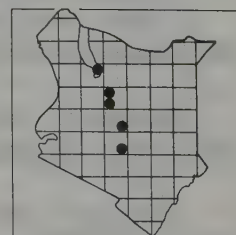
Open bushland on rocky soils.

3. *Euphorbia borenensis* M. Gilbert

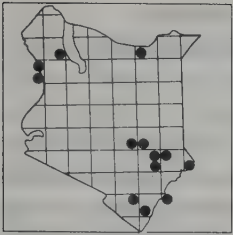
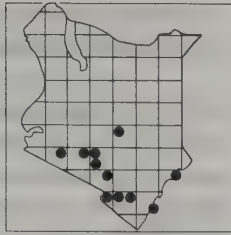
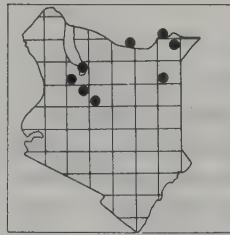
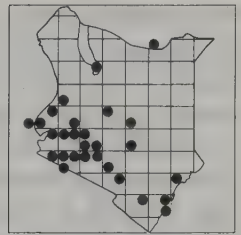
Succulent shrub, erect, to 3m. Branches 4-angled, 1-
 2cm thick. Spineshields continuous, with spines to
 8mm long but missing on the upper branches. Flowers
 in solitary 1-forked cymes. Fruit red-flushed, obtusely
 3-lobed, 2.5 by 4mm.



Euphorbia adjurana



Euphorbia atroflorea

*Euphorbia breviararticulata**Euphorbia bussei**Euphorbia calamiformis**Euphorbia candelabrum*

K1; only known from the Ramu-Malka Mari road, at 400m, in *Acacia-Commiphora* woodland on limestone.

4. *Euphorbia breviararticulata* Pax

(*E. grandicornis* sensu KTS)

Shrub or tree, 1.5-6m. Branches succulent, 2-4 winged, constricted into segments, to 15cm across. Spineshields continuous; spines to 7cm long. Leaves deciduous (not seen). Flowers yellow-green, in short cymes. Fruit yellow-red, 3-angled, about 7 by 15mm.

K127; 1-1200m; X-XII *

Dry bushland.

Kalalue (BOR), Kalawille (ORM), Kalaula (SOM).

5. *Euphorbia bussei* Pax var. *kibwezensis* (N.E.Br.) S.Carter

(*E. kibwezensis* N.E. Br.)

Tree 4-12m. Branches succulent, 2-5-winged, segmented to 14cm wide; spine shields continuous; spines 0.4-3.5cm long. Leaves deciduous (not seen). Flowers golden yellow, in short cymes. Fruit 3-angled, to 9 by 16mm.

K467; 1-2000m; I, IV-VII, X *

Dry bushland, often on rocky outcrops; on the coast also in dry forest margin.

Kithui (KAM). Used by the Kamba in the building of grain stores.

6. *Euphorbia calamiformis* Bally & S.Carter

(Climbing) shrub, 1-3m, succulent. Branches and stems cylindrical, unarmed, to 1cm across. Leaves up to 3cm, soon deciduous. Flowers yellow, in terminal umbels to 3cm long. Fruit pink, 3-angled, to 8mm across.

K1; 900-1600m; V, VII, XI *

Dry bushland.

Ano (BOR), Amboyo (SOM).

7. *Euphorbia candelabrum* Kotschy

Tree 6-18m with candelabra-like branching from the top of the trunk. Branches succulent, 4-5-angled, shortly winged, to 10cm across. Spine shields separated, with spines to 5mm long. Leaves to 2.5cm long, deciduous. Flowers yellow-green, in short cymes. Fruit red, 2-3-lobed.

K1234567; 1-1800m; II, IX-XII *

On steep rocky slopes or rocky outcrops in bushland, thickets, wooded grassland or dry evergreen forest.

Mtungutungii, Mtupa (SWA), Baraidi (BON), Adama (BOR), Ganga (DIG), Addaama (GAB), Kyaa (KAM), Kithuri, Mububungu (KIK), Ludua (LUH), Bondo (LUO), Ol-Bobongo (MAA), Darkhen (SOM), Kuress (TUG), Yoopong (TUR). The white latex is dangerous to open wounds or if it gets into the eyes. A decoction of the pith of the branches is given to women just after childbirth by Maasai.

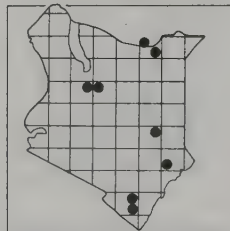
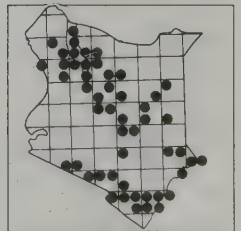
8. *Euphorbia cryptospinosa* Bally

Succulent shrub, usually climbing through other plants, 0.2-5m long. Branches succulent, 5-8-ribbed, to 1cm across; spineshields continuous, inconspicuous; spines to 1mm, inconspicuous. Flowers red, in short cymes. Fruit purple-green, about 2.5mm across.

K17; 150-1350m; I, VI, XII *

Open *Acacia-Commiphora* bushland or *Duosperma* bushland.

Arsa (BOR), Dalith-hoko (ORM). Latex poisonous.

*Euphorbia cryptospinosa**Euphorbia cuneata*

9. *Euphorbia cuneata* Vahl[*E. spinescens* of KTS]

map p.201

Shrub or tree 0.5-3(-6)m; trunk bark yellow or greybrown, bark of branches often reddish purple, peeling; branches woody, ending in a spine. Leaves bunched on very short shoots, obovate, base attenuate, apex rounded, 1-4 by 0.4-1.6cm, glabrous or thinly pubescent. Flowers yellow or yellow-green, on very short shoots, on (usually) leafless branches. Fruit reddish purple.

K12467; 1-1350m; I-II, IV-XII

Acacia-Commiphora bushland or semi-desert scrub; on the coast in mixed bushland. Often occurs on lava, and may form pure stands there. This plant looks quite like a *Commiphora*!

Mchongoma, Mlimbilimbi (SWA), (H)Idda, Wara (BOR), (H)idaa (GAB), Kilewa (KAM), Andiqi, Ramo (REN), Ltilemani (SAM), D'rander (SOM), Echokokile, Lokilei (TUR).

Key to the subspecies:

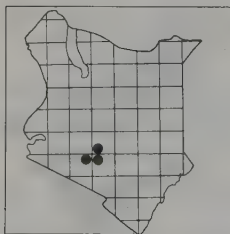
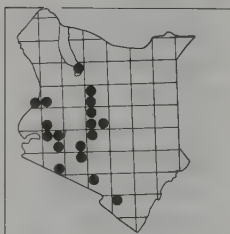
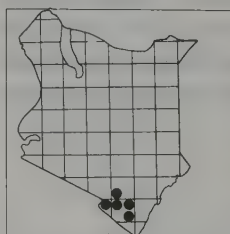
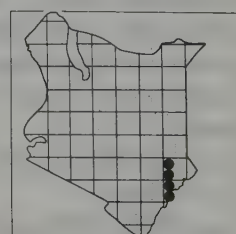
- | | |
|--|---|
| 1. Flower cyathea 1-3 per cyme | 2 |
| * Flower cyathea 4 or more per cyme | 3 |
| 2. Branch bark shiny reddish purple | |
| ssp. <i>lamproderma</i> S.Carter | |
| * Branch bark not shiny, grey or greybrown | |
| ssp. <i>spinescens</i> (Pax) S.Carter | |
| 3. Cyathea 4-5 per cyme, 5mm across | |
| ssp. <i>cuneata</i> | |
| * Cyathea up to 30 per cyme, 3mm across | |
| ssp. <i>wajirensis</i> S.Carter | |

10. *Euphorbia cussonioides* Bally

VULNERABLE, ?ENDANGERED

Tree 9-25m. Branches succulent, 3-angled, constricted into segments, 2.5-6cm across. Spine shields separate, spines to 2mm long. Leaves to 1cm long, deciduous. Flowers yellow-green, in short cymes. Fruit 3-lobed, 10-12 by 14-15mm.

K46; 1350-1800m; I, III *

*Euphorbia cussonioides**Euphorbia engleri**Euphorbia espinosa**Euphorbia fluminis*

Dry upland forest or riverine. Endemic.

Mramba (EMB), Mulembwa (KAM), Githuri (KIK).

11. *Euphorbia engleri* Pax

Woody herb or shrub 0.5-3m. Leaves slightly fleshy, (narrowly) elliptic, base attenuate, apex acute, 6-16 by 2-6cm, glabrous. Flowers (yellow-) green, in long stalked umbel-like cymes with large obovate bracts. Fruits yellow-green, 3-lobed, about 4mm long.

K134567; 1750-2650m; I-V, VII-XII

Dry or moist upland forest; also in bamboo zone.

Waotho (KIK), Chepkonget (KIP), Ol-Legole (MAA), Loitugumi (NDO), Lguburtu (SAM). Poisonous.

12. *Euphorbia erlangeri* Pax

Succulent scrambler to 3m. Branches 3-6-ribbed, 5-10mm thick. Spineshields continuous, with spines 1-4mm long. Flowers in solitary, 1-forked cymes. Fruit obtusely 3-lobed, 2.5 by 3.5mm.

K1; 450-650m; - *

Open *Acacia-Commiphora* bushland on limestone; confined to the Ramu area.

13. *Euphorbia espinosa* Pax

Shrub, 0.5-2.5m, sometimes subscandent. Leaves absent for most of the year, elliptic, base cuneate, apex acute, 2-5 by 1-2.5cm, glabrous. Flowers (present when leaves are absent) yellow-green with a touch of red, in very short cymes. Fruit purple-green, 3-lobed, 7-10 by 7-11mm.

K47; 500-1050m; VI, VIII-X *

Acacia-Commiphora bushland, often on rocky outcrops.

Oloilei (MAA), Ngolioniet (KIP).

14. *Euphorbia fluminis* S.Carter VULNERABLE

Succulent shrub, semi-scandent, 0.6-2m. Branches 4-angled, 0.5-1cm across. Spine shields usually continuous; spines solitary, bifurcate at the apex, to 15mm

long. Leaves less than 2mm long. Deciduous. Flowers red, in short cymes. Fruit 3-lobed, small. K17; 1-100m; I, VI, VIII, XII * Endemic. Dense bushland on sandy, alluvial soils.

15. *Euphorbia friesiorum* (Hassler) S.Carter
(*E. pseudograntii* of KTS & UKWF) **RARE**

Shrub or less often tree 1-5(-10)m. Branches somewhat succulent, to 1cm across, with prominent leaf scars. Leaves persistent, narrowly elliptic or slightly obovate, base attenuate, apex acute with a very narrow, thread-like acumen, 7-20 by 1-4.5cm, glabrous. Flowers reddish green, in long terminal cymes, with cuplike bracts, the whole cyathium 3-8cm across. Fruits 3-lobed, to 20mm across.

K4; 650-1950m; II, IV-VI, X-XII * Endemic.

Dry bushland on rocky sites, in rocky sites along rivers, and on deforested land.

Mwaniathenge (KIK), Kithuri (MER). The latex may cause blindness when it gets into the eye.

16. *Euphorbia glochidiata* Pax

Subscandent, succulent shrub to 2m. Branches 4 (-5)-angled, to 1.5cm thick. Spineshields continuous or nearly so, with forked spines to 20mm long. Flowers in solitary, 1-forked cymes. Fruit purple-flecked, 3.5 by 5mm.

K147; 150-750m; V, IX, XI-XII*

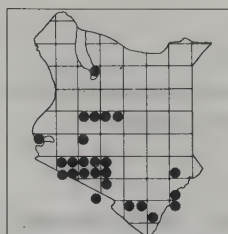
Open *Acacia-Commiphora* bushland, usually on limestone.

17. *Euphorbia goetzei* Pax

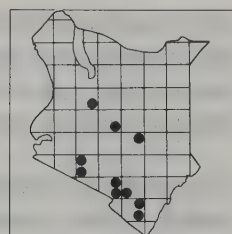
Rather succulent shrubby herb to 4m. Leaves obovate, base cuneate, apex rounded, to 15 by 6mm, pilose or glabrous. Flowers in 3-5-branched umbels to 15cm long. Fruit 3-lobed, 8 by 10mm.

K147; 500-1800m; VIII-XII*

Dense bushland on rocky slopes; known from "Yatta" and Voi.



Euphorbia gossypina



Euphorbia heterochroma

18. *Euphorbia gossypina* Pax

Succulent scrambler, 1-10m long. Branches cylindrical, 4-10mm across, unarmed. Leaves on young shoots only, narrowly elliptic, 0.8-2.5 by 0.3-0.5cm, glabrous. Flowers yellow-green or reddish, in terminal umbellate cymes. Fruit 3-lobed, about 5mm across. K134567; 1-2200m; I-IV, VI, VIII-XII (X-XII)

Dry bushland or thickets, especially on rocky outcrops or rocky hillsides; also in dry forest margins and rarely in wooded grassland.

Dana (ILW), Ngolioniyit, Ngoliet (KIP), Oloilei (MAA), Dalith (ORM). The latex can cause blindness.

19. *Euphorbia heterochroma* Pax

ssp. *tsavoensis* S. Carter

Succulent-stemmed and -branched shrub, semi-scrambling, 1-3m. Branches 4-6-angled, to 2cm wide. Spine shields continuous; spines to 1cm long. Leaves deciduous (not seen). Flowers red, in short cymes. Fruit purple-red, 3-lobed, about 4mm across.

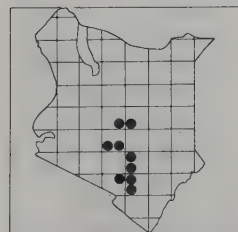
K1467; 450-2050m; II-IV, VI-VIII *

Rocky outcrops and lava flows.

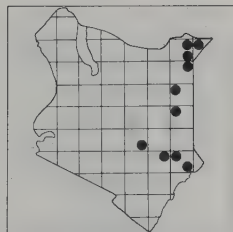
(H)arkeena (GAB), Enleusanoi (MAA).

20. *Euphorbia heterospina* S. Carter

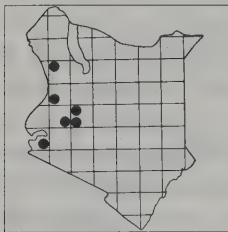
Succulent shrub, erect, to 3.5m. Branches 4-5-angled, 1-2cm thick. Spineshields continuous or nearly so, with spines to 10mm, less than 1mm long on the upper branches. Flowers yellow or red, in solitary, 1-forked cymes. Fruit red-flushed, deeply 3-lobed, 3.5-6mm.



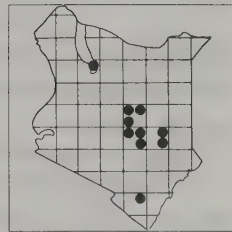
Euphorbia friesiorum



Euphorbia glochidiata



Euphorbia heterospina



Euphorbia joyae

K23; 900-1800m; I, VIII*

Sparse woodland on rocky slopes.

Normally with yellow inflorescence; specimens with red cyathea are ssp. *baringoensis* S. Carter.

21. *Euphorbia jatrophioides* Pax

Shrub 0.5-2.5m. Branches woody. Leaves obovate, base obtuse to subcordate, apex subacute, rounded or emarginate, 1-6.5cm by 1-3cm, short-pubescent beneath. Flowers yellow-green, subtended by large cream obovate bracts, in terminal cymes. Fruit 3 lobed, about 5mm long.

K1; 400-800m; III *

Dry bushland, usually on limestone. Known from Lamu area.

Sheikhboh (BOR).

22. *Euphorbia joyae* Bally & S. Carter map p.203

Looks very much like *E. jatrophioides*, but with hairy instead of glabrous cyathea.

K147; 150-750m; II-VI, XII (V, XII)

Open *Acacia-Commiphora* bushland. Endemic.

Kangalsha (BOR). A decoction of the roots is employed in a cough medicine by the Boran.

23. *Euphorbia magnicapsula* S. Carter

var. *lacertosa* S. Carter

Tree 4.5-12m. Branches succulent, 3-4-winged, segmented, to 12cm wide; spine shields continuous; spines 0.3-1.5cm long. Leaves deciduous (not seen). Flowers yellow, in short cymes. Fruit not seen.

K23; 1200-2200m; X *

Bushland on rocky slopes or riverine/lakeside thickets.

Emuss (TUR).

24. *Euphorbia matabelensis* Pax

Shrub or tree 2.5-5m, with 3-forked branching, the branches ending in spines; bark smooth, brown or

yellow-green; looking like a *Commiphora*. Leaves in small clusters from short spur shoots, obovate, base cuneate, apex rounded, 1-3.5 by 0.5-1.2cm, densely pubescent. Flowers usually present when leafless, yellow-green, in short cymes. Fruit 3-lobed, to 8mm across.

K46; 1200-1500m; XI-XII *

Dry *Acacia-Commiphora* bushland on, or at the base of, rock outcrops.

25. *Euphorbia nubica* N.E. Br.

(Sub)scandent shrub to 2m, forming tangled masses. Branches about 1 cm thick, fleshy. Leaves sessile, lanceolate, to 18 by 5mm, caducous. Flowers yellow, in short dense cymes. Fruit obtusely 3-lobed, to 10 by 15mm.

K12; 1350-1550m; IV, XI-XII*

Dry bush- or woodland.

26. *Euphorbia nyikae* Pax

Shrub or more often tree, 3-12m. Branches succulent, 2-4-winged, segmented, to 12cm wide; spine shields continuous (or nearly so); spines 0.3-3 (4)cm long. Leaves deciduous (not seen). Flowers yellow-green, in short cymes. Fruit yellow-green, to 12mm across.

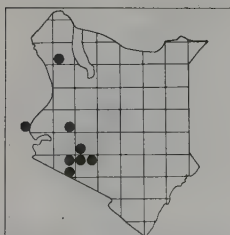
K347; 1-150m(coast) & 550-2000m; V, VII, XI *

On the coast [var. *neovolkensii* (Pax) S. Carter] in forest margins or *Brachystegia* woodland; inland (var. *nyikae*) in semi-evergreen bushland/ woodland on rocky hills and outcrops.

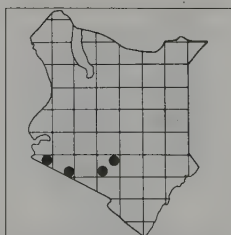
27. *Euphorbia obovalifolia* A. Rich.

Tree 4.5-18m. Branches succulent, 3-4-winged, segmented, to 13cm wide; spine shields separate; spines 0.1-0.4cm long. Leaves persistent on young growth, leathery, obovate, base cuneate, apex rounded, 3-13 by 1-4.5cm, glabrous. Flowers yellow-green in short cymes. Fruit 3-angled, to 13mm across.

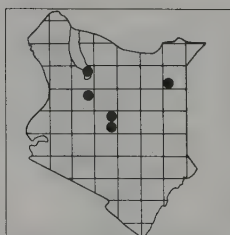
K2346; 2100-2400m; —*



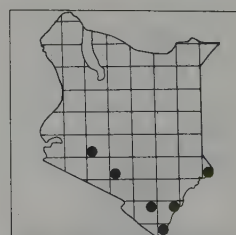
Euphorbia magnicapsula



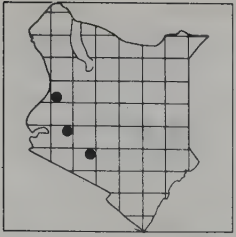
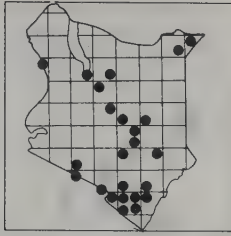
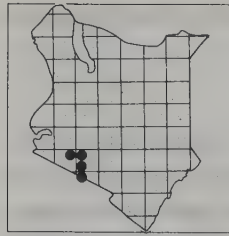
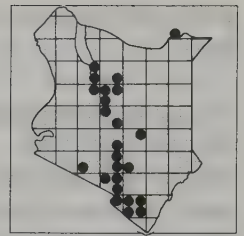
Euphorbia matabelensis



Euphorbia nubica



Euphorbia nyikae

*Euphorbia obovalifolia**Euphorbia polyantha**Euphorbia scarlatina**Euphorbia scheffleri*

Forest (remnants); conspicuous on the top ridge of Ngong Hills.

Koresiet (KIP, NAN), Kureswa (TUG, MAR).

28. *Euphorbia polyantha* Pax

Shrub 0.5-2m, occasionally scrambling to 3m; bark shiny, reddish brown, peeling. Leaves obovate, base cuneate, apex rounded, 1-4 by 0.7-2cm, glabrous or nearly so. Flowers (occasionally present when shrub is leafless) in terminal cymes to 4cm long, yellow-green, with round bracts. Fruit purplebrown, 3-lobed, to 5mm across.

K12467; 50-1200m; I-II, IV-V, X-XII.

Acacia bush- or woodland, usually on rocky hillsides and outcrops.

29. *Euphorbia quinquecostata* Volken

Tree 4.5-10.5m, with dark scaling bark. Branches succulent, 4-5-angled (-8, Gillett 19144?), to 2cm across. Spine shields (almost) continuous; spines 0.2-0.9cm long. Leaves deciduous (not seen). Flowers yellow-green, in short cymes. Fruit yellow-green with red sutures, 3-lobed, to 14mm across.

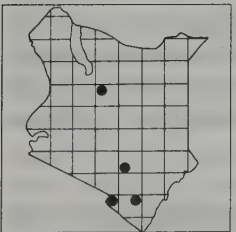
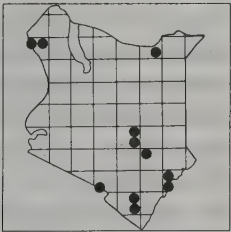
K47; 550-1000m; I, XII *

Dry bushland or rocky hills; large stands on Sagalla.

Note. Gilbert 5619 from Nguronit is a new species closely allied to *E. quinquecostata*.

30. *Euphorbia robecchii* Pax

Tree 5-10.5m, with grey bark. Branches succulent,

*Euphorbia quinquecostata**Euphorbia robecchii*

cylindrical, 1-2.5cm wide, and spineless when mature, 3-4-angled, and with recurved spines to 1cm when young; spine shields separate. Leaves deciduous, minute. Flowers yellow-green, in short cymes. Fruit purple-grey, 3-angled, to 15mm across.

K12467; 1-800m; I-II, V *

Acacia-Commiphora bushland; forms pure stands near Garsen.

Hathama (ILW), Dagerai, Shatetai (MAA), Hadhame (ORM), Darkhen (SOM), Eopong (TUR).

31. *Euphorbia scarlatina* S. Carter

Succulent shrub, erect, to 3m. Branches (4-) 5-6-angled, 15-25mm thick, constricted at 10-30cm intervals. Spineshields continuous, with spines to 10mm long, but shorter on the upper branches. Flowers red, in solitary, 1-forked cymes. Fruit dark red, deeply 3-lobed, 3.5 by 5.5mm.

K36; 600-2000m; ?*

Open bushland on rocky slopes.

32. *Euphorbia scheffleri* Pax

Shrub 1-4m or more rarely a tree up to 12m. Leaves tufted at branch ends, obovate, base cuneate, apex rounded, emarginate or acute, 3-10 by 1.5-6cm, glabrous or sparsely pubescent. Flowers (often present when plant is leafless) yellow-green with a reddish centre, in terminal umbels or clusters (to 2.5cm long). Fruit 3-lobed, 23mm across.

K1467; 450-1050(1650)m; I-VI, VIII-X, XII (III-V)

Dry bushland, usually on rocky hills or on rocky riverbanks; also in dry forest margins.

Kilembwa (KAM), Ol-Asajet (MAA), Anjir (SOM), Lkorbobit (SAM). Smoke from the wood serves as a meat tenderizer.

Easily confused with *Synadenium* spp.

NOTE: Van Someren 29 & 180 from Emali Hill are described as forest margin trees to 12m high; this differs from the usual description, and its altitude is

also higher than usual. I was unable to find the species there.

33. *Euphorbia tanaensis* Bally

[*E. sp.* of KTS]

ENDANGERED

Tree 16-30m. Branches succulent, 5-6-winged, not or hardly segmented, to 11cm wide; spines shields separate, spines 2-8mm long. Leaves to 6mm long, deciduous. Flowers red, in short cymes. Fruit red, 3-lobed, to 5(?)mm across.

K7; only known from Witu forest; XI *

Semi-deciduous swamp forest. Only 10 trees are known to exist.

34. *Euphorbia tenuispinosa* Gilli

Subscandent shrubby succulent to 1.8m. Branches 4-angled, 5-10mm thick. Spineshields continuous or nearly so, with spines 2-12mm long. Flowers yellow-brown, in solitary, 1-forked cymes. Fruit obtusely 3-lobed, 3.5 by 5.5mm.

K147; 150-1100m; V-VI, VIII-IX*

Acacia-Commiphora bushland.

Hadama (GALLA/OROMO). An important constituent of the arrow poison of the Galla.

35. *Euphorbia tescorum* S.Carter

Succulent shrub, 0.5-2m, many-stemmed from the base; stems/branches (4) 5-6(-8)-angled, to 4cm wide; spineshields continuous, spines 0.3-1.5cm long about 2mm long, deciduous. Flowers yellow-green, in short cymes. Fruit reddish, 3-lobed, to 5.5mm across.

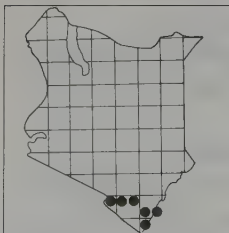
K12; 550-1300m; V-IX, XI *

In crevices of rocky outcrops, lava, and on scree.

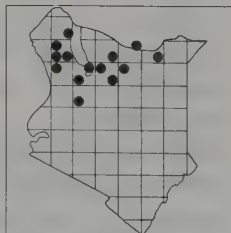
Dollo-Taraabet (REN), Kalalui (SOM), Echorokog (TUR).

36. *Euphorbia tirucalli* L.

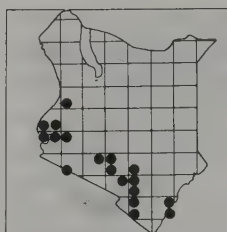
Shrub or tree 3-6m. Branches succulent, cylindrical, unarmed, leaves to 6mm long, on young growth only.



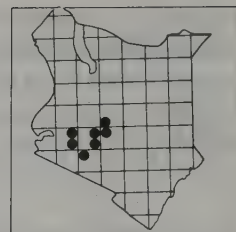
Euphorbia tenuispinosa



Euphorbia tescorum



Euphorbia tirucalli



Euphorbia ugandensis

Flowers cream or yellow-green, in short terminal clusters. Fruit 3-lobed, to 6mm across.

K24567; 0-1600m; IV, IX, XII *

Dry bushland, thickets, and coastal bushland.

Believed to come from India originally; widely planted as a hedgeplant, and gone wild in many places.

Finger Euphorbia (STAND), Mtupa mwitu (SWA), Utudi (DIG), Dana (ILW), Ndaui (KAM), Ojuok (LUO), Ol-Oile (MAA), Asubgwa (MAR), Wadida (ORM), Tumwen (PKT), Dana (SOM). Used for fish poison.

37. *Euphorbia ugandensis* Pax

Woody herb or shrub 0.5-3m, with red stems and branches. Leaves elliptic, base cuneate, apex acute, 2-8.5 by 1-2.5cm, glabrous. Flowers yellow-green, in terminal umbels 2-6cm long. Fruit reddish, 3-lobed, to 6mm across.

K346; 2150-3200m; I, III-XII

Disturbed forest, forest margins, bamboo margins, *Hagenia* woodland.

Dangarasiet (LUM), Oldengararia (MAA). Maasai use a leaf infusion as an emetic against cold and cough.

38. *Euphorbia usambarica* Pax

Woody herb or shrub 1.5-2m, resembling *E. ugandensis*.

K7; 1350-1750m; *

Forest margins or disturbed forest in Taita Hills.

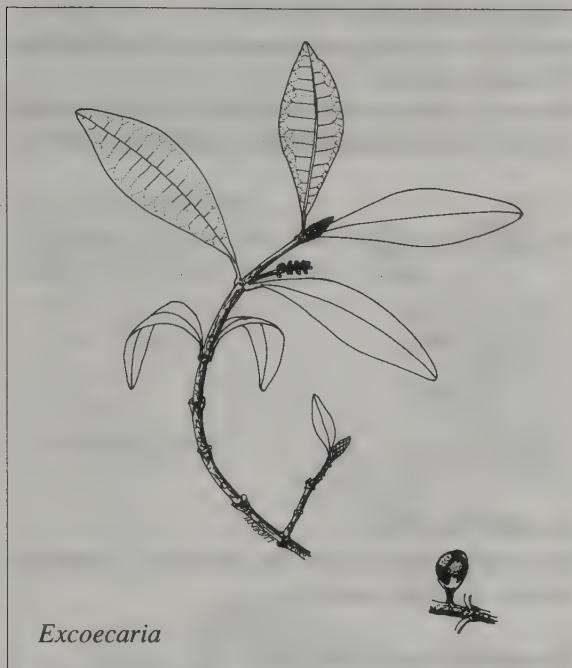
39. *Euphorbia wakefieldii* N.E.Br.

ENDANGERED

Tree 5-12m. Branches succulent, 3-angled, to 2cm wide, not segmented; spineshields separate, spines 3-6mm long. Leaves deciduous (not seen). Flowers yellow-green, in short cymes. Fruit brown, 3-lobed, to 8mm wide.

K7; 1-300m; II *

On coral cliffs and limestone outcrops; occasionally thicket-forming. Endemic to Mombasa-Kilifi area.



15. EXCOECARIA

Monoecious. Inflorescence spicate, with small flowers; petals absent.

1. Leaves alternate 1. *E. bussei*
 * Leaves opposite 2. *E. madagascariensis*

1. *Excoecaria bussei* (Pax) Pax

Tree 4-10m, with white latex in all parts. Bark grey, rough or smooth. Leaves alternate, slightly obovate, base cuneate, apex shortly acuminate, margin crenulate, 5-20 by 2-8cm, glabrous. Flowers yellow-green, in terminal (rarely axillary) spikes to 8cm; corolla to 1.5mm. Fruit inflated, globose, 3-angled, 3.5-6cm across.

K7; only known (in Kenya) from an area inland from Kiunga, near Mangai; 1-50m; - *

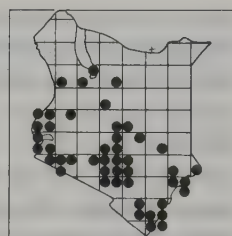
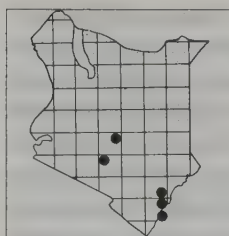
Woodland/bushland or scattered tree grassland.

2. *Excoecaria madagascariensis* (Baill.) Müll.Arg.

Shrub or tree 2-3m, with latex in all parts. Leaves opposite, elliptic, base cuneate, apex obtuse or bluntly acuminate, margin entire, 4-15 by 2-5.5cm, glabrous. Flowers yellow-green, in axillary spikes to 3cm; flowers to 1mm long. Fruit 3-lobed, about 1cm across.

K47; 1-400m (coast) or 900-1450m; I *

Riverine forest (inland), coastal forest or thicket.



Excoecaria madagascariensis *Flueggea virosa*

Mugulare (GIR). The latex is used as an ingredient for arrow-poison.

16. FLUEGGEA

Dioecious. Leaves alternate. Flowers axillary; sepals 5, petals 0.

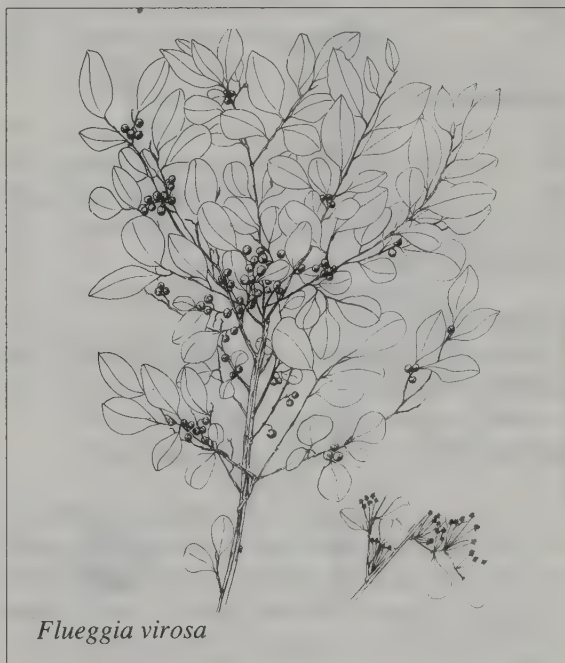
Flueggea virosa (Willd.) Voigt.

[*Securinega virosa* (Willd.) Baill.]

Shrub (rarely tree) 1-6m. Leaves obovate, base cuneate, apex rounded or emarginate, 2-5 by 1-2.5cm, glabrous. Flowers yellow-green or cream, in sparse to very dense axillary fascicles; sepals 1.5-2mm. Fruit white, 2-3 by 4-5mm.

K1234567; 1-1800m; I, III-V, VII-XII (XI)

Riparian, in rocky bushland/bushed grassland, in wooded grassland; less often (western and coastal



areas) in forest margins, also on black cotton soil. Mkwamba (SWA, GIR), Mukuluu (KAM), Esarara (KIS), Getaruwet (KIP), Kagera (LUO), Kisasari (LUH), Segeteti (MAA), Kororo (ORM), Kiptarpotich (PKT), Elakis (TUR). A root decoction is employed against chest pains by the Kamba; pounded leaves are insect-repellent. Wood durable, yielding a good charcoal. Fruit edible. Maasai use the twigs as tooth-brushes.

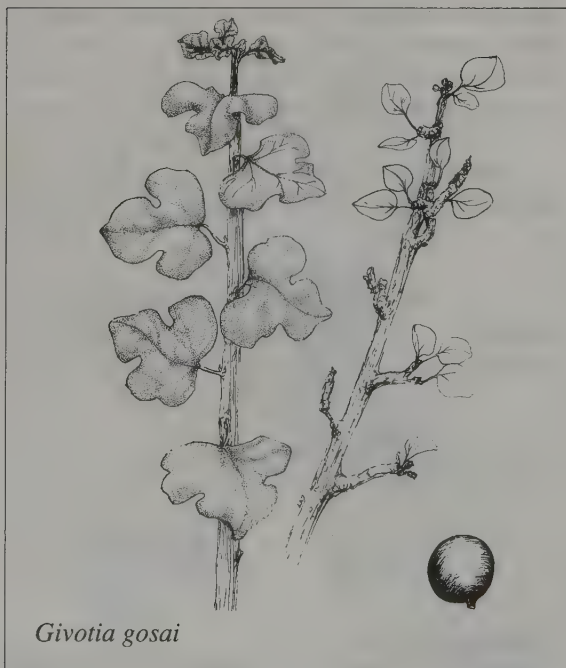
17. GIVOTIA

Dioecious, with stellate hairs on all parts. Leaves alternate. Male flowers in axillary panicles; female flowers terminal and solitary. Fruit a 1-seeded drupe.

Givotia gosai A.R.Smith

[Genus novum of KTS]

Shrub or tree 2-6m, much spreading. Bark dark grey. Branches with viscid dark brown sap. Leaves clustered on short axillary shoots, spaced on terminal shoots, almost round or reniform, sometimes 3-5-lobed, base cuneate or subcordate, apex obtuse, 2-5 by 2-7cm, densely stellate-pubescent but becoming almost glabrous. Flowers yellow-green, in panicles to 4.5cm long (male) or solitary (female); corolla 5-6mm long. Fruit yellow, round, 25-27mm across.

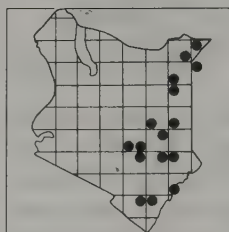


Givotia gosai

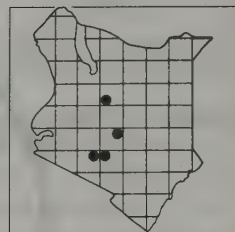
K147; 50-650m; III, V, IX-XII *

Acacia-Commiphora or *Acacia-Grewia* bushland; may be locally common.

Kossaye (BOR), Kosaiye (ILW, ORM), Ilimindi (KAM), Gossai, Kosai (SOM). The fruit is edible.



Givotia gosai



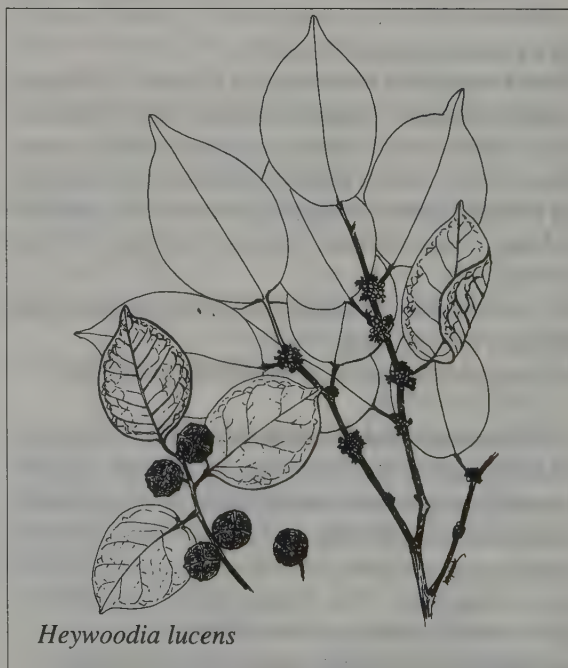
Heywoodia lucens

18. HEYWOODIA

Dioecious. Leaves alternate, stipulate. Flowers in axillary fascicles; petals 5.

Heywoodia lucens Sim

Tree 6-30m, with greybrown, slightly rough bark which flakes in older trees. Leaves broadly (elliptic-) ovate, base cuneate or rounded (peltate on sucker shoots), apex shortly acuminate, 4-15 by 2-12cm, glabrous. Flowers greenish, in fascicles; petals 2-

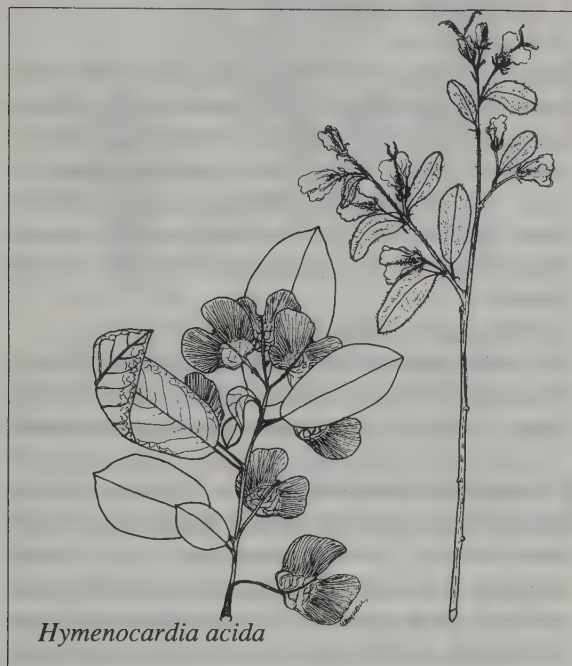


Heywoodia lucens

2.5mm. Fruit depressed globose, 9-12mm long, 14-18mm across, opening explosively. K14; 1200-1950m; III, VII-IX *
Riverine forest or dry upland forest.
Mutaigoka (KIK), Nyoosia (SAM).

19. HYMENOCARDIA

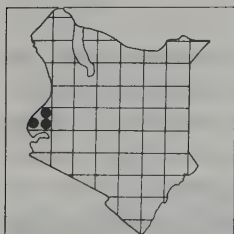
Dioecious. Leaves alternate, with caducous stipules. Petals absent. Fruit a winged capsule.



Hymenocardia acida Tul.

Shrub or tree 3-6m. Leaves elliptic, base cuneate or rounded, apex obtuse, 4-10 by 1.5-4cm, yellowbrown-pubescent to almost glabrous beneath, densely gland-dotted beneath. Flowers reddish, the male in spikes on older wood to 7cm, the female in terminal racemes to 3cm; flowers about 1mm. Fruit flat, 2-winged, 2-2.5cm long.

K5; 1100-1650m; X *



Hymenocardia acida

Wooded grassland.

Olulando (LUH). Wood very hard, durable and termite-resistant; used to make charcoal for iron-smelting by the Luhya.

20. JATROPHA

Monoecious. Usually with a thick rootstock or tuber. Leaves alternate, stipulate, the stipules usually divided and sometimes becoming spiny. Inflorescences cymose, with a single female flower terminating each axis, lateral branchlets male-flowered. Petals 5. Female flowers opening before the male ones.

1. Stipules spiny, over 1mm long 2
- * Stipules not spiny, or less than 1mm 6
2. Spines in groups of 2 or 3, usually forked

4. *J. ellenbeckii*

- * Spines unbranched 3
- 3. Spines 10-30mm long; leaves petiolate

3. *J. dichtar*

- * Spines less than 9mm long; leaves (sub)sessile
- 9. *J. rivae* s.l. (see 4)

4. Leaves glandular-toothed 1. *J. arguta*
- * Leaves shallowly lobed, not toothed 5

5. Spines recurved, 1-3mm; leaves more or less lobed
7. *J. parvifolia*

- * Spines straight, 3-8mm; leaves (sub)entire
- 9. *J. rivae*

6. Leaves shallowly lobed 2. *J. curcas*
- * Leaves deeply lobed 7

7. Leaves 9-12-lobed, some lobes again lobed
6. *J. multifida*

- * Leaves 3-5-lobed 8
- 8. Leaf margins glandular-dentate or serrate 10

- * Leaf margins entire 9
- 9. Leaves and young branches pubescent

11. *J. stuhlmannii*

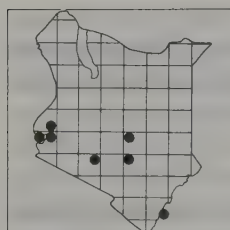
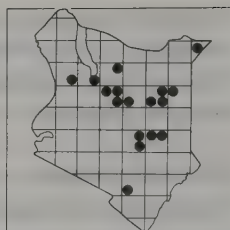
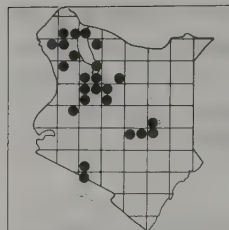
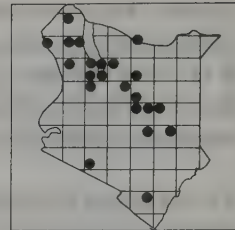
- * Leaves and young branches glabrous
- 5. *J. hildebrandtii*

10. Petiole 4-28mm long; stipules less than 2mm long
8. *J. pelargonifolia*

- * Petiole 40-80mm long; stipules up to 13mm long
- 10. *J. spicata*

1. *Jatropha arguta* Chiov.

Shrub 0.5-2m; bark purple-grey. Stipules spiny, 2-6mm long. Leaves subsessile, obovate, base cuneate, apex rounded, margin glandular-dentate, 1-3 by 0.5-1cm, sparsely hairy beneath. Flowers greenish, in

*Jatropha curcas**Jatropha dichotar**Jatropha ellenbeckii**Jatropha parvifolia*

axillary cymes; corolla 4.5-5mm. Fruit round, 3-lobed, 6-7mm.

K1; 400-450m; V *

Acacia-Commiphora woodland on limestone: Malka Mari area, NE Kenya.

Note: this species is very close to both *J. parvifolia* and *J. rivae*.

2. *Jatropha curcas* L.

Shrub or tree, 1.5m; bark smooth, greenish yellow-brown, peeling in papery scales. Stems rather fleshy with much latex. Leaves broadly ovate, usually shallowly 5-lobed, base cordate, apex acuminate, 7-13 by 7-14cm, glabrous or nearly so; 5-9-nerved from base. Flowers yellow-green, in supra-axillary corymbs to 9cm; flowers about 6mm. Fruit ellipsoid, 25-30cm long.

K457; 1-1650m; I-III, XII *

The 'physic nut', widely cultivated and gone wild in bushland and along rivers.

3. *Jatropha dichotar* Macbr.

[*J. ferox* Pax]

Shrub 1-4m, with many erect branches from the base; bark dark reddish-purple, papery-peeling (to show green underbark?). Latex clear, milky or red. Spines straight, 1-5cm long. Leaves broadly ovate, shallowly 3-5-lobed, base cordate, apex obtuse, margins dentate or subentire, 1.5-6 by 1.5-6cm, densely tomentose. Flowers pale yellow, fading to pink, in axillary corymbs to 6.5cm long; corolla 17-19mm long. Fruit shallowly 3-lobed, 17-25 by 20-30mm.

K147; 50-1100m; I-V, VII, IX-XII (I, V, XII)

Acacia-Commiphora bushland on sand.

Imbiloi (BOR), Gurur (ORM), Laparana (SAM), Eтираh (TUR), Dighdarr (SOM). The stem juice is used by the Somali for eyedrops; the roots are emetic.

4. *Jatropha ellenbeckii* Pax

[*J. fissispina* Pax]

Semi-succulent shrub with thick, short main stem. Latex clear or reddish yellow. Spines in 2 or 3 from a thickened base, often forked, 0.5-3cm long. Leaves palmately divided in 5-7 lobes, glandular-dentate, 4-12 by 3-12cm, pubescent. Flowers cream or yellow-green, in 10-20cm long terminal panicles; corolla about 4mm long. Fruit ellipsoid, 3-lobed, 10-14 by 9-12mm.

K123467; 250-1050m; II, V, VIII, X-XII *

Dry bushland on rocky sites; occasionally on silty soil. Dawa-buna (ILW), Burankis (ORM), Halbun (SOM), Lotou (TUR, PKT). The juice is used to heal wounds.

5. *Jatropha hildebrandtii* Pax var. *hildebrandtii*

Shrub 1-1.5(-3.5)m with slightly fleshy stems. Latex clear yellowish. Spines minute, about 1mm. Leaves palmately divided in (3)5 lobes, margins (sub-)entire, 4-14 by 4-16cm, glabrous. Flowers reddish yellow, in subterminal corymbs to 15cm; corolla about 3mm. Fruit ellipsoid, 3-lobed, 10-12 by 8-10mm.

K7; near sea-level; I, II, VIII *

Sand dunes on Lamu Island and near Kiunga.

6. *Jatropha multifida* L.

Shrub or small tree. Leaves palmately divided into 9-12 narrow lobes, with some of the lobes pinnately divided.

Cultivated and occasionally gone wild at the coast.

"Coral tree".

7. *Jatropha parvifolia* Chiov.

Shrub 0.5-3m, much branched. Bark purplegrey, sap clear to reddish yellow. Spines slightly recurved, 1-3mm long. Leaves sessile, clustered on short shoots; blade shallowly lobed, ovate, base cuneate, apex obtuse, 1-3 by 0.8-2cm, glabrous except for midrib & veins. Flowers yellow-green, fading to pink,

*Jatropha ferox* Pax

a: branchlet ($\times 4$); b: almost leafless branchlet ($\times 4$); c: fruit ($\times 1$); d: σ flower ($\times 2$); e: gynoecium of φ flower ($\times 3$).

a & e: from Glover & Gilliland 287; b & d: from Hemming 331; c: from Dale 718.

in stalked axillary cymes; flowers 2mm (male) and 3-10mm (female). Fruit ellipsoid, 3-lobed, 8-10 by 7-8mm.

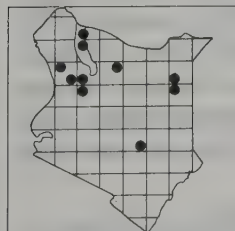
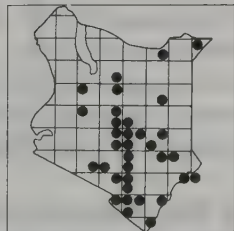
K1267; 200-1050m; II, IV-VI, VIII-IX, XI-XII (XI-XII)

Acacia-Commiphora bushland, bushed grassland, and sparse bushland on lava or in rock crevices; may form pure stands in the North, on rock or gravel plains.

Finchiriss (BOR), Nyorohole (REN), Ebulon (TUR), Gedon, Washekara (SOM).

8. *Jatropha pelargoniifolia* Courb.

Shrub, 0.5-1.5m, obconical. Sap pale yellow turning reddish. Spines minute or absent. Leaves palmately 3-5-lobed, the lobes obovate, with glandular-denticulate margins, 2-5 by 2-6cm, pubescent or glabrous. Flowers yellow-green, in leaf-opposed or subterminal stalked

*Jatropha pelargoniifolia**Jatropha spicata*

cymes; flowers 3-4mm. Fruit ellipsoid, 3-lobed, 7-11 by 6-8mm.

K127; 200-1000m; I, III-V, VII-VIII, X-XII

Acacia-Commiphora bushland or semi-desert scrub; may be locally dominant in sand dune areas.

Dighdar Yer/Sauwar (SOM), Nyoroholi (REN), Ebulon (TUR).

9. *Jatropha rivae* Pax s.s.

Very similar to *J. parvifolia*, but with the leaves (sub-)entire; spines 3-8mm, straight.

K1; 300m; V *

Acacia-Commiphora bushland on rocky hill (03° 38' N, 41° 46' E)

Note. *J. rivae* is the oldest name for the *arguta/parvifolia/rivae* complex.

10. *Jatropha spicata* Pax

Woody herb or shrub 0.3-2.5m with tuberous root. Sap clear to milky. Spines absent. Leaves palmately and deeply 3-5-lobed, 5-12 by 6-15cm, glabrous. Flowers yellow-green or reddish green, in long terminal or leaf-opposed cymes; flowers 3.5-4mm. Fruit ellipsoid, 3-lobed, 10-13 by 9-13mm.

K13467; 1-1200m; I-V, VII-VIII, X-XII (IV-V, XII)

Acacia-Commiphora bushland, often on rocky sites; also on alluvial or black soils; at the coast also on sand dunes.

Kalamba (KAM), Muk-sala (ORM). A leaf or stem infusion is used by Boran as a laxative.

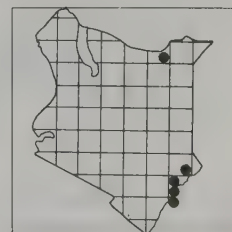
11. *Jatropha stuhlmannii* Pax

Shrub 1-2m; sap clear. Spines absent. Leaves palmately and deeply 5-lobed, 4-12 by 4-16cm, pubescent. Flowers yellow-green, in long-stalked leaf-opposed (seemingly terminal) cymes; flowers 4-5mm. Fruit ellipsoid, 3-lobed, 8-11 by 8-10mm.

K17; 1-1050m; IV, VIII, X *

Dry bushland or bushland, often on alluvium.

Bakha (SOM).

*Jatropha stuhlmannii*

21. MACARANGA

Trees and shrubs with simple indument. Leaves alternate, stipulate, sometimes peltate, palmnerved or penninerved. Inflorescences dioecious (rarely monoecious), axillary and solitary (rarely fasciculate) or clustered; male inflorescences many-flowered, female ones 1-flowered; petals absent, stamens 1-30.

1. Leaves 3-lobed **4. *M. schweinfurthii***

* Leaves entire **2**

2. Petiole 10-20cm; leaves 10-30 by 10-20cm

1. *M. capensis*

* Petiole 1.5-11cm; leaves 4-17.5 by 2-13cm **3**

3. Inflorescence a dense cluster (Taita Hills only)

2. *M. conglomerata*

* Inflorescence a loose panicle (widespread)

3. *M. kilimandscharica*

1. *Macaranga capensis* (Baill.) Sim.

(incl. *M. ruwenzorica* Pax)

Tree 3.5-15(30)m; bark smooth, grey; stem and branches spiny when young. Leaves broadly ovate, base (deeply) cordate or peltate and rounded, shortly acuminate, 10-30 by 10-20cm, 7-11-nerved from the base, tomentellous but glabrescent, densely glandular-punctate beneath. Inflorescence 5-12cm long. Fruit subglobose, 3-5 by 4-6mm, densely yellow-green glandular.

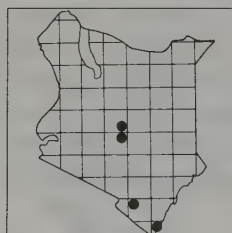
K47; 300-2100m; V-VI *

Moist forests, especially near streams.

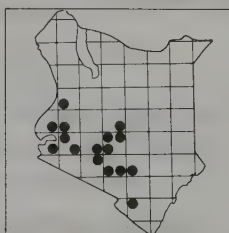
Mbawa (SWA), Mukuhakuha (KIK).

2. *Macaranga conglomerata* Brenan **RARE**

Tree to 25m; bark smooth, grey. Leaves (broadly) ovate, base rounded or cordate (peltate in saplings only), apex acuminate, margin entire or minutely denticulate, 4-17.5 by 2-13cm, 7-9-nerved from the base, rusty-tomentellous but glabrescent, densely glandular-punctate beneath. Inflorescence long-pedunculate and 5-10mm (-20mm in fruit) across, with



Macaranga capensis



M. kilimandscharica



Macaranga capensis (Baill.) Sim

a: flowering branchlet from ♀ plant (×½). b: part of ♀ inflorescence (×4). c: L.S. ♀ flower (×15). d: flowering branchlet from ♂ plant (×½). e: part of ♂ inflorescence (×3). f: ♀ flower (×15). g: fruits (×4). h: fruit (×3).
a-c: from Drummond & Hemsley 1176; d-f: from Drummond & Hemsley 2456; g & h: from Drummond & Hemsley 1311.

brown-green flowers. Fruit obovoid or two-lobed, 5-6 by 4-8mm, densely yellow-green glandular.

K7; 1400-1800m; IX *

Taita Hills forest.

Dundu (TAI).

3. *Macaranga kilimandscharica* Pax

Tree 6-24m; bark pale grey (rarely described as pale red-brown). Leaves triangular-ovate, base cuneate, rounded, truncate or rarely subcordate, occasionally peltate, apex acuminate, 5-15 by 3-10cm. 3-7-nerved from the base, rusty-tomentellous but glabrescent, densely glandular-punctate beneath. Inflorescences 2-10cm long, with yellow-green flowers. Fruit dull green, subglobose or two-lobed, 4-6 by 5-11mm, densely glandular.

K3457; 1650-2400m; II, VI, IX, XII *

Moist upland forest, often abundant in forest edges. *Macaranga* (STAND), Erwa (CHE), Legumeta (NDO), Mukuhakuha (KIK), Mukalati (KAM), Mukaho, Mukuhakuha (LUH), Kibgetoyoa (MAR), Mukarati (MER) Sebesebet (NAN), Kaptebema (SEB), Logomaita (KIP, NDO). Wood used for boxes and crates.

4. *Macaranga schweinfurthii* Pax

Tree to 25m with flat crown and spiny trunk; bark

rough, grey. Leaves three-lobed, base cordate, apex acute, margin repand-dentate, 25-50 by 25-50cm, 9-nerved from the base, glabrous or nearly so, minutely glandular-punctate beneath; petiole 12-40cm. Inflorescences 6-22cm long. Fruit two-lobed, 8-9 by 9-10mm, puberulous but glabrescent.

K5; 1300-1500m; II *. Only three specimens known; not collected for 25 years.

Riverine or swamp forest: Bukura-Sabatia area. Subuhu (LUH).

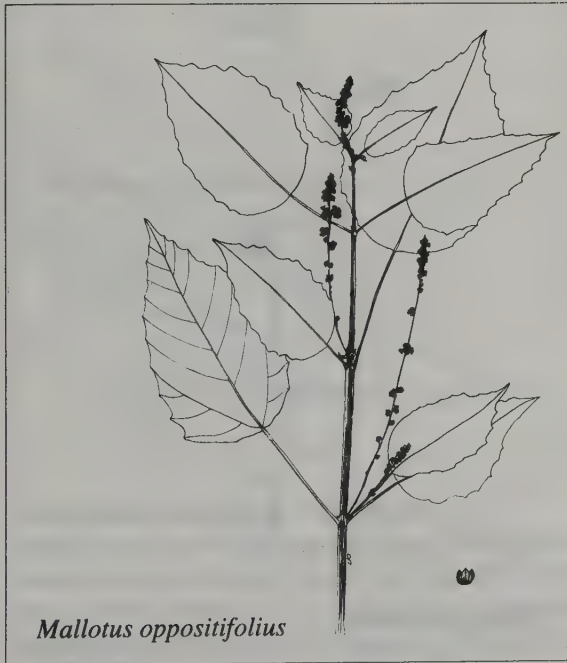
22. MALLOTUS

Dioecious. Leaves opposite. Flowers in axillary racemes; petals absent.

Mallotus oppositifolius (Geisel.) Müll.Arg.

Shrub or tree 1-8m. Bark pale grey. Leaves (broadly) ovate, base subcordate to rounded and cuneate, apex acuminate, margin subentire to glandular-denticulate, 3-16 by 2-10cm, stellate-pubescent to almost glabrous and somewhat glandular; petioles of opposite leaves of different lengths. Flowers whitish or yellow-green, in long-stalked racemes; sepals about 2mm long. Fruit depressed globose, 3-lobed, 5-7 by 7-9mm.

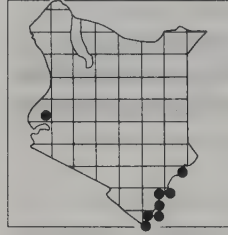
K57; 1-450m (coast) and about 1600m (Kakamega); I-III, V-XI (XI)



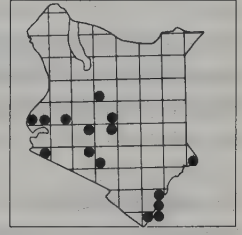
Mallotus oppositifolius

Dry or moist forest (margins); less often in coastal bush.

Mchacha (SWA), Mkonga (DIG), Mtangula-Duza (GIR). A root decoction is employed against chest pains by the Digo.



Mallotus oppositifolius



Margaritaria discoidea

23. MARGARITARIA

Dioecious. Leaves alternate, stipules soon falling. Flowers: males in axillary fascicles, females 1-3, axillary. Petals absent.

Margaritaria discoidea (Baill.) Webster

[*Phyllanthus discoideus* (Baill.) Müll.Arg.]

Tree (rarely a shrub) 4-24m; bark pale grey, soft & thick, occasionally with thick spines to 4cm. Leaves elliptic or slightly (ob-)ovate, base cuneate, apex



Phyllanthus discoideus (Baill.) Müll. Arg.

a: fruiting branchlet from ♀ plant (× 4). b: young fruit (× 2). c: portion of flowering branchlet from ♂ plant (× 4). d: ♂ flower (× 8).
a: from Napier 6680; b: from Napier 5948; c & d: from M.D. Graham 1.

rounded, obtuse or acuminate, 2-11 by 1-7cm, glabrous to sparsely puberulous. Flowers cream or pale yellow, in fascicles; sepals 1-3mm. Fruit deeply (var. *triplosphaera*) or shallowly (var. *nitida*, *fagifolia*) 3-4-lobed, 5-9 by 10-13mm.

K134567; 1-400m (coast) and 1200-1950m; I, IV, IX, XI *

Moist or dry forest (margins) or forest remnants. Chipalika (DIG), Mukololo (GIR), Mukarara (KIK), Mugaruturu (MER), Tusuandet (TUG). Used as building poles.

24. MEINECKIA

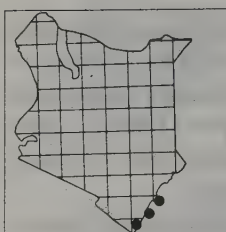
Monoecious. Leaves alternate, stipulate. Flowers in axillary fascicles; petals absent. Fruit 3-lobed.

Meineckia fruticans (Pax) Webster

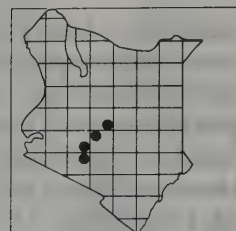
Shrub 0.5-1.5(3)m, often with pendulous branches. Leaves elliptic, base cuneate to obtuse, apex shortly and bluntly acuminate, 1-9 by 0.5-4.5cm, glabrous. Flowers greenish-white, in fascicles; sepals 1-1.5mm. Fruit 4-4.5mm across.

K7; 1-300m; VI, XI-XII *

Forest or woodland on limestone or coral.



Meineckia fruticans



Micrococca holstii

25. MICROCOCCA

Diocious. Leaves alternate, stipulate. Inflorescences axillary; petals absent.

1. Petiole (11)40-70mm long; central Kenya

1. *M. holstii*

* Petiole 2-11mm long; coast

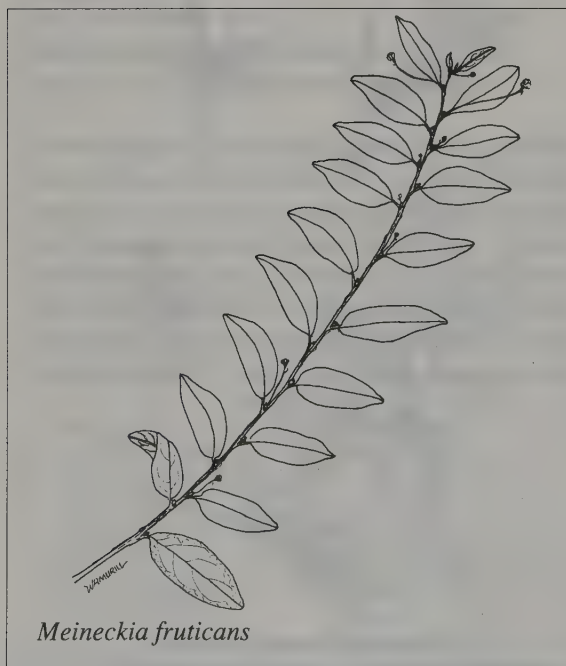
2. *M. scariosa*

1. *Micrococca holstii* (Pax) Prain

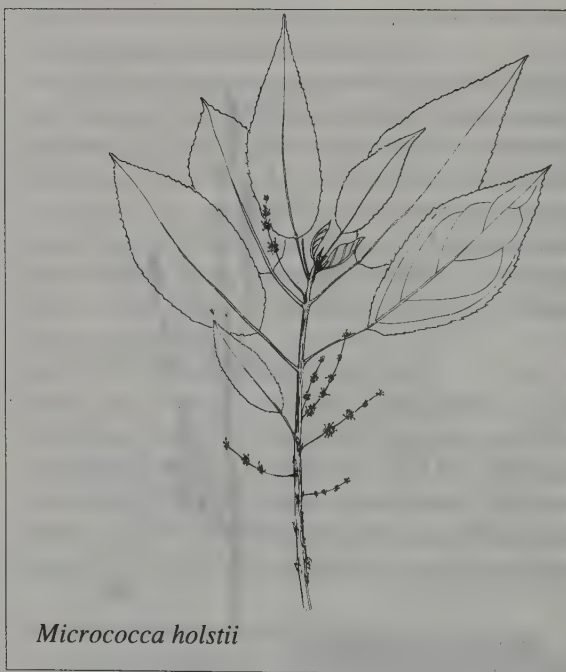
Shrub 1-3m. Leaves (narrowly) elliptic, base cuneate or obtuse, apex acuminate, margins denticulate, 5-20 by 2-7.5cm, sparsely pubescent to subglabrous beneath; petiole near with 2-4 tiny stipels. Flowers greenish, the males in 5-20cm long racemes, the females in 1.5-2cm long racemes; sepals about 1.5mm long. Fruit subglobose, 3-lobed, 3-4 by 6-7mm.

K4; 1900-2400m; II-III, X *

Moist (*Ocotea*) forest.



Meineckia fruticans



Micrococca holstii

2. *Micrococca scariosa* Prain

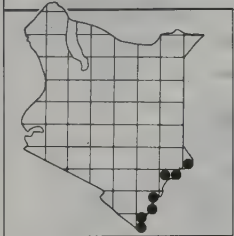
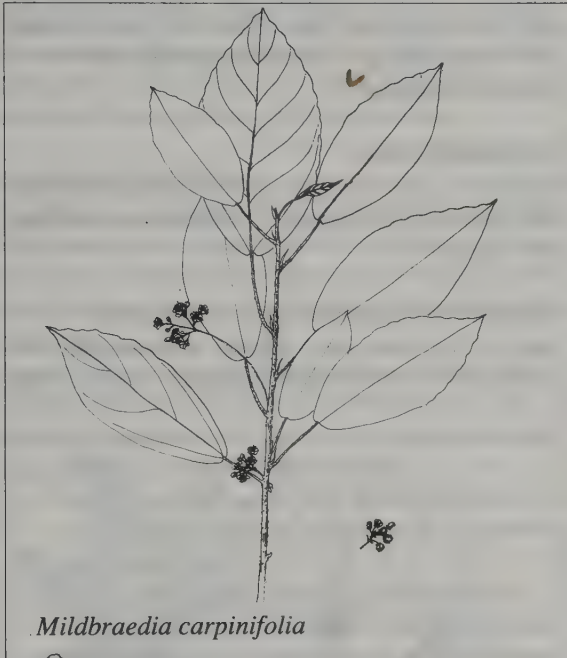
VULNERABLE, ?ENDANGERED

Shrub 1.5-3m. Leaves elliptic, base cuneate, apex acuminate, margin subentire or remotely toothed, 6-15 by 2-8cm, glabrous. Flowers whitish, the males in up to 20cm long spikes, the females in 3-5cm long spikes; sepals about 1mm. Fruit 3-lobed, 6-10 by 10-12mm. K7; 1-100m; XI *

Forest on limestone at Pangani; also at Gongoni.

26. *MILDBRAEDIA*

Dioecious. Leaves alternate; stipules deciduous. Inflorescences (supra) axillary. Petals 5.

*Mildbraedia carpinifolia****Mildbraedia carpinifolia* (Pax) Hutch.**

Shrub or tree 1-5m. Leaves glossy above, elliptic, base rounded or subcordate, apex acuminate, margin subentire or serrate in upper half, 3-21 by 2-8cm, somewhat sandpapery due to stellate pubescence. Flowers yel-

low-green or cream, in stalked cymes to 8cm, petals 3-4mm. Fruit globose, 3-lobed, 6-7 by 7-10mm.

K7; 1-450m; IV, VI, VIII, X-XII *

Coastal forest or woodland.

27. *NEOBOUTONIA*

Trees or shrubs with stellate hairs. Leaves alternate, stipulate, palminerved. Inflorescences dioecious, terminal, paniculate, the male inflorescences larger than the female. Flowers without petals; stamens 15-30.

1. Mature leaves pubescent on veins beneath

1. *N. macrocalyx*

* Mature leaves densely tomentose beneath

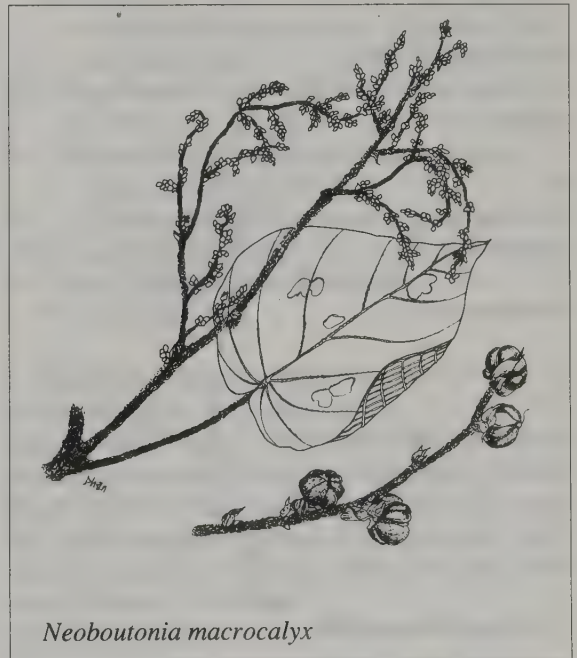
2. *N. melleri*

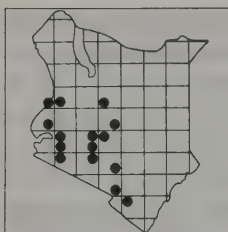
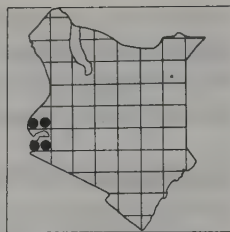
1. *Neoboutonia macrocalyx* Pax

Tree (2) 7-25m; bark fairly smooth, greybrown. Leaves broadly ovate or subcircular, base cordate, apex acute or shortly acuminate, margin entire or denticulate, 6-35 by 6-35cm, pubescent on vein-network; petiole 10-20cm long, with 2 stipitate glands near leaf-insertion. Inflorescence with yellow-green flowers, to 50 by 30cm. Fruit grey, three-lobed, 10-12 by 12-13mm, stellate-pubescent.

K1234567; 1600-2700m; I, III-IV, VI, IX-XII

Upland forest, mostly on edges and in clearings. A



*Neoboutonia macrocalyx**Neoboutonia melleri*

quick-growing pioneer in places where moist forest has been disturbed or cleared.

Kibatwa (CHE), Mwega (KAM), Mutundu (KIK), Sabaitet (KIP), Mutuntuki (MER), Chebakwa (SEB), Muhaa (TAV), Dundu, Shawa (TAI). Wood soft, white, fibrous, suitable for paper pulp.

2. *Neoboutonia melleri* (Müll. Arg.) Prain

Shrub or tree 3.5-9m, bark fairly smooth. Leaves broadly ovate or subcircular, base cordate, apex acute or obtuse, margin entire, 5-25 by 5-25cm, densely whitish-tomentose beneath; petiole 10-17cm. Inflorescences to 40 by 30cm with yellow-cream flowers. Fruits three-lobed, 5-8 by 8-13mm, stellate-pubescent.

K5; 1200-1650m; I-III *

Wet evergreen forest and riverbanks.

Opuh (LUO), Mubohu (LUH), Kipsebuet (NAN). Poisonous.

28. *NEOHOLSTIA*

Dioecious. Leaves alternate, stipulate (stipules deciduous), 3-5-nerved from base. Inflorescences terminal, racemose; petals 5.

Neoholstia tenuifolia Pax var. *glabrata* (Prain) Pax

Shrub 1.5-3m. Leaves thin, elliptic or ovate, base cuneate to subcordate, apex shortly acuminate, (margin rarely dentate-lobate), 6-16 by 3-9cm, slightly hairy on midrib and veins. Flowers white, in spike-like racemes 13-25cm (male) or less than 6cm long (female); flowers about 2mm. Fruit 4 by 5mm, 3-lobed. K7 (Pangani, Kambe rocks); about 80m; VI-VII * Forest on limestone.

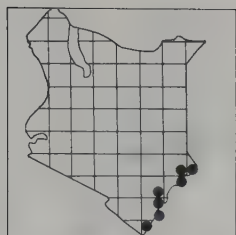
29. *OLDFIELDIA*

Dioecious. Leaves usually opposite, less often alternate, digitately compound. Inflorescences axillary; petals absent.

Oldfieldia somalensis (Chiov.) Milne-Redh.

Tree 6-23m; bark grey, slightly longitudinally fissured. Leaves with 5-7 leaflets, these 5-15 by 1.5-4cm,

*Neoholstia tenuifolia**Oldfieldia somalensis*

*Oldfieldia somalensis*

sparsely pubescent. Flowers yellow-white, in short, few-flowered cymes; sepals 1mm (male) or 5-12mm (female). Fruit yellow, round, 15-20mm.

K1/7,7; 1-450m; I, V *

Dry forest or bush/woodland.

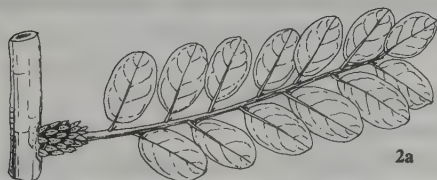
Mbauri, Mbambara (SWA, BON), Mbirandu (GIR), Bora (SAN). The bark decoction is bitter and poisonous, and is used against pneumonia. The wood is hard, and used in door frames and construction.

30. PHYLLANTHUS

Monoecious or dioecious. Leaves usually on specialized branchlets of limited growth, resembling pinnate leaves and subtended by scale leaves. Flowers unisexual, in axillary fascicles; sepals 4-6. Fruit a berry or dry capsule.

Note: FTEA states that *P. nummularifolius* and *P. odontadenius* are occasionally larger than 1.5m. I think this originates in highly doubtful specimen labels, and I have omitted these species.

1. Plants with only scale leaves on main stem; normal leaves on short branchlets resembling pinnate leaves 2
- * Plants with normal leaves on main stem as well as on branches 13. *P. welwitschianus*
2. Leafy branches emerging from scaly cushions, or scandent plant 3



- * Scaly cushions absent or inconspicuous 4
- 3. Leaf apex acute or acuminate; fruit 20-28mm across; Shimba Hills 1. *P. delpyanus*
- * Leaf apex obtuse or rounded; fruit 3-4mm across; widespread 7. *P. ovalifolius*

4. Spines present, more than 2mm long; flowers in racemes from older wood 5
- * Spines absent or minute; flowers in fascicles among the leaves 6
5. Sepals about 1mm long; fruit 3-4mm across 6. *P. muellerianus*
- * Sepals 1.5-2mm long; fruit 20-30mm across, inflated 4. *P. inflatus*
6. Leafy branches usually less than 10cm long 7
- * Leafy branches usually more than 12cm long 12
7. Leafy branches 1-3cm long; leaves 4-11 by 3-7mm (coastal *Brachystegia* woodland) 5. *P. kaessneri*
- * Leafy branches more than 5cm long; leaves usually larger 8
8. Flower pedicels 1-4mm long 9
- * At least some pedicels 5-10mm long 10
9. Leaves 10-30 by 7-20mm; sepals with yellow margins; fruit smooth 2. *P. fischeri*
- * Leaves 6-15 by 4-11mm; sepals with green margins; fruit slightly rough 11. *P. sepialis*
10. Coastal/Northeastern species, below 600m; fruit more than 3mm across 11
- * Inland species, above 900m; fruit about 1.5mm across 3. *P. fluminis-athi*
11. In coastal bushland near the sea; fruit 8-10mm across 8. *P. pinnatus*
- * Around waterholes and pans, or riverine; fruit 3-5mm across 12. *P. somalensis*
12. Flower pedicels less than 4mm long; sepals 1-1.3mm 9. *P. reticulatus*
- * Flower pedicels more than 4mm and up to 15mm long; sepals 1.5-3mm 13
13. In Shimba/Taita Hills (remnant) forest patches; leaves ovate/elliptic 10. *P. sacleuxii*
- * In dry bushland areas near water, leaves elliptic/obovate 12. *P. somalensis*

1. *Phyllanthus delpyanus* Hutch.

[*P. beillei* Hutch., *P. engleri* of list]

Shrub or tree 2-4.5m. Dioecious. Leafy branchlets from scaly cushions; scales becoming spiny. Leaves elliptic or ovate, base cuneate or rounded, apex acute or slightly acuminate, 2-5 by 1-3cm, glabrous. Flowers white, in axillary fascicles; sepals 1.5-2mm. Fruit round, 3-lobed, 20-28mm.

K7; 50-450m; III *

Buda, Pangani, Mrima and Shimba Hills forest. Mkuta manena (DIG). A root decoction is employed against STD by the Digo

2. *Phyllanthus fischeri* Pax

Shrub 0.5-3m, sometimes scrambling. Monoecious or dioecious. Leaves elliptic, base rounded or slightly cuneate, apex obtuse or rounded, 1-3 by 0.7-2cm, glabrous. Flowers yellow-green or greenish white, in few-flowered fascicles; sepals 1.5-2mm. Fruit about 1.8 by 2.5mm.

K123456; 1450-2700m; I-XII (X-XII)

Dry upland forest margins and clearings, also in riverine forest or -woodland.

Olderis (MAA), Segetetiete (NAN, KIP), Koka po cheporon (PKT). A fruit decoction is employed against roundworm by the Nandi.

3. *Phyllanthus fluminis-athi* Radc.-Sm.

(*Phyllanthus* sp. B of UKWF)

Shrub to 2.5m, monoecious. Leaves ovate-elliptic, base rounded, apex obtuse or rounded, 1-2.5 by 0.5-1.5cm, glabrous. Flowers green, solitary, long-stalked; sepals 1.5-2mm long. Fruit purplish, round, about 1.5mm.

K4; 900-1450m; I, XI *

Riverine bush at Fourteen Falls and near Kibwezi.

4. *Phyllanthus inflatus* Hutch.

Tree (less often a shrub) 2-9m; monoecious; spines 2-3mm long, at base of leafy branchlets. Leaves elliptic, base rounded or cuneate, apex obtuse or acute, 3-5 by 1-2cm, glabrous. Flowers green, in 2-5cm long racemes on older wood; sepals 1.5-2mm. Fruit green, inflated, subglobose, 2-3cm long.

K45; 1200-1650m; VII *

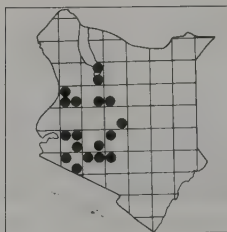
Moist forest or riverine forest (Kakamega, Kuja river, Nyambeni Hills).

5. *Phyllanthus kaessneri* Hutch.

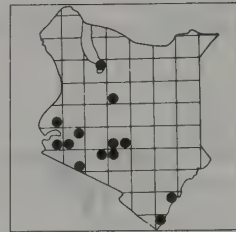
Shrub to 1.5m, monoecious. Leaves broadly (ob)ovate or almost round, base rounded, apex rounded, 0.4-1.1 by 0.3-0.7cm, glabrous (var. *kaessneri*) or pilose (var. *polycytotrichus*). Flowers cream, hanging, 1-2 per axil; sepals about 0.6mm. Fruit 1.5-2mm across.

K7; 1-400m; V, VIII, XI *

Brachystegia woodland or open forest (between Marafa



Phyllanthus fischeri



Phyllanthus ovalifolius

and Kilifi, and at Mwachi, Maluganji, Mrima).

Kacharare (GIR). Used in cough mixtures by the Giriama.

6. *Phyllanthus muelleranus* (O. Kuntze) Exell

Shrub or tree 2.5-5(12)m, monoecious; spines 2-5mm, in pairs at base of leafy shoots. Leaves elliptic-ovate, base cuneate or rounded, apex obtuse or subacute, 3-7 by 2-3.5cm, glabrous. Flowers greenish cream, in 2-6cm long racemes from older wood; sepals about 1mm. Fruit 3-4mm across, reddish or black.

K5; 1250-1500m; - *

Riverine forest at Broderick Falls and Mumias.

Mkasiri, Mkumbu (SWA), Katore (GIR).

Note: All specimens cited in KTS are *P. reticulatus*.

7. *Phyllanthus ovalifolius* Forssk.

(*P. guineensis* Pax, *P. lalambensis* Schweinf.)

Shrub, tree or scrambler 0.5-6m. Monoecious (rarely dioecious). Leafy branchlets from scaly cushions; leaves elliptic, base rounded or cuneate, apex obtuse or rounded, 0.7-2.3 by 0.4-1cm, glabrous. Flowers cream fading to pink, in axillary clusters; sepals 1.3-1.5mm. Fruit blue or purple, 3-4mm across.

K134567; 100-350m (coast) and 1350-2450m; I-II, IV, VI-XII

Riverine bushland and secondary bush in forest.

Motya-bo (ILW), Mukarara (KIK), Makwachit (KIP), Anyidhra (LUO), Tusuandet (TUG).

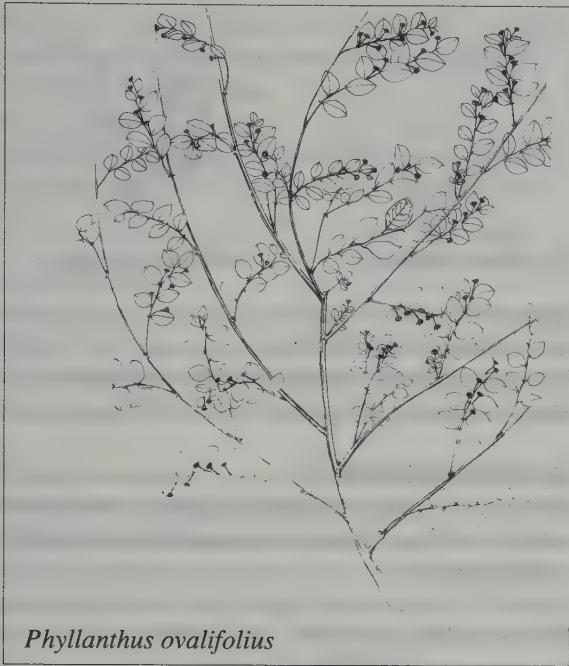
8. *Phyllanthus pinnatus* (Wt.) Webster

(*P. kirkianus* Müll.Arg.)

Shrub 1.5-3m. Dioecious. Leaves elliptic or (ob)ovate, base cuneate or rounded, apex rounded, 1.5-3 by 0.7-2cm, glabrous. Flowers yellow-green, in dense fascicles on older (usually leafless) twigs; sepals 1-1.5mm. Fruit 4-5 by 8-10mm.

K1/7, 7; 1-30m; I, III-IV, X-XI *

Coastal closed-canopy bushland near the sea.

*Phyllanthus ovalifolius*

Mukwamba-galana (GIR).

9. *Phyllanthus reticulatus* Poir.

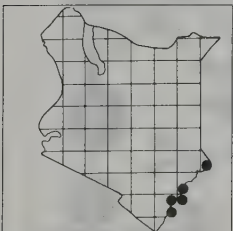
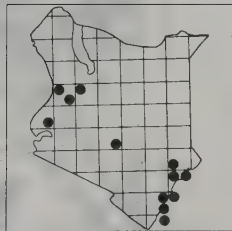
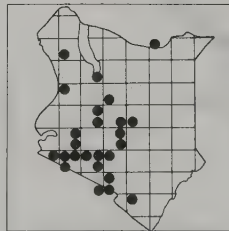
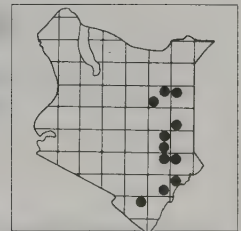
(*P. muellaranus* sensu KTS)

Shrub or tree 1-4.5m; monoecious. Stems with tiny prickles near old branch scars. Leaves elliptic or (ob-)ovate, base rounded, apex obtuse or rounded, 1-3 by 0.7-2cm, glabrous. Flowers greenish-cream to red, in fascicles or in racemes; sepals 1-1.3mm. Fruit blue or blue-black, 3-7mm across.

K123457; 1-1000m; I-II, IV, VII-XII.

Inland in riverine bush, -woodland or -forest; on the west coast in *Hyphaene* woodland or in bushland close to the sea.

Mkasiri (SWA, GIR), Mkwamba (DIG), Echekerena (TUR). The bark contains tannin. Turkana use the twigs as toothbrushes.

*Phyllanthus pinnatus**Phyllanthus reticulatus**Phyllanthus sepialis**Phyllanthus somalensis*

10. *Phyllanthus sacleuxii* Radc.-Sm.

(*P. taitensis* & *P. mittenianus* sensu KTS) RARE Shrub 1-2.5m; monoecious. Leaves ovate or elliptic, base cuneate or rounded, apex acute or obtuse, 2-6 by 1-3.5cm, glabrous. Flowers greenish cream, few in axillary groups (long-stalked); sepals 2-3mm. Fruit brown, about 3.5mm across.

K7; 300-400m (Shimba Hills) and 1100-1350m (Taita and Sagalla Hills); III-V *

Remnant forest patches.

11. *Phyllanthus sepialis* Müll.Arg.

(*P. meruensis* Pax)

Shrub 1-3m, dioecious. Leaves elliptic or slightly obovate, base rounded or cuneate, apex rounded to subacute, 0.6-1.5 by 0.4-1.1cm, glabrous. Flowers yellow-green, few in axillary groups; sepals about 1mm. Fruit 2-2.5mm across.

K123467; 600-1950m; I-XII (V-VI, XI)

Riverine woodland or -bushland; less often in dry bushland, semi-evergreen bushland, or dry forest. May be locally common on black cotton soils.

Iri-Waseso (BOR), Mwelanganga (KAM), Minyeywet Ap Osnet (KIP), Lobereti, Enkere-Sampel (MAA), Anyighira (LUO). Used in building and for firewood.

12. *Phyllanthus somalensis* Hutch.

Shrub 1-3m; monoecious. Leaves elliptic to obovate, base obtuse or rounded, apex rounded to subacute, 1.5-4 by 1-3cm, glabrous. Flowers yellow-green, in axillary fascicles; sepals 1.5-2.5mm. Fruit 3-5mm across.

K17; 50-600m; I, V-VI, IX, XII *

Forming pure stands near waterholes and temporary pools in dry bushland; also riverine.

Dirrewarsessa (BOR), Mpesi (DIG), Kormoto (ILW), Komorto (ORM), Kamasha, Wachab (SOM). The leaves are poisonous to stock.

13. *Phyllanthus welwitschianus* Müll.Arg.var. *beillei* (Hutch.) Radc.-Sm.(P. *stolzianus* Pax & K. Hoffm.)

Shrub 1-3m. Dioecious. Leaves oblong-elliptic, base rounded or cuneate, apex obtuse or rounded, 2-5.5 by 1-2.5cm, glabrous. Flowers cream or yellow-green, few in axillary fascicles; sepals 2-3mm. Fruit yellow or reddish, 6-8mm across, 3-lobed.

K7; 1-400m; V, VIII, XI *

Brachystegia woodland (Arabuko-Sokoke, Mangua and Marafa).

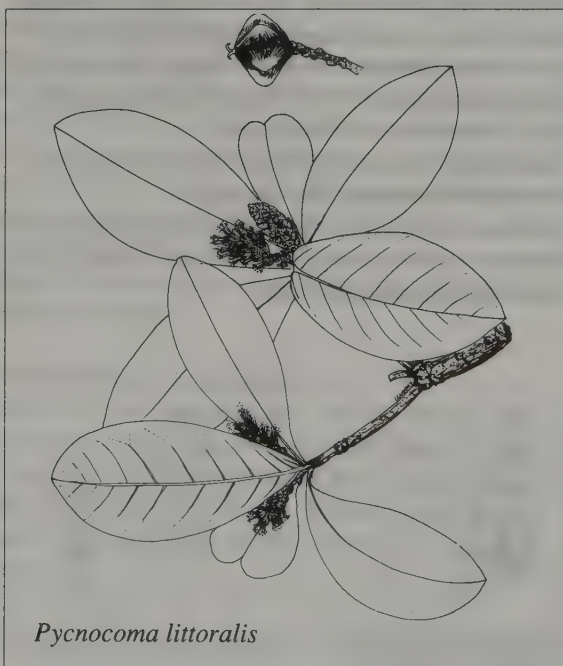
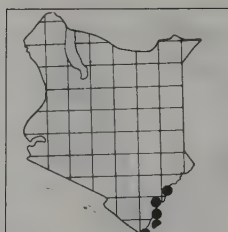
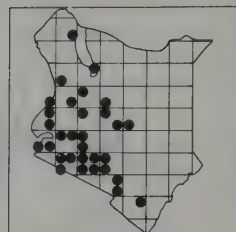
Mkamba-Vitu (SWA), Mwama Ngira (GIR).

31. PYCNOCOMA

Monoecious. Leaves alternate, clustered at tips of branches. Inflorescence axillary, racemose; stamens many; female flowers solitary at top of raceme. Petals absent.

***Pycnocomma littoralis* Pax**

Shrub or tree 1-10m. Leaves elliptic or somewhat obovate, base cuneate, apex obtuse, margins inconspicuously crenulate, 7-20 by 3-9cm, glabrous, minutely glandular. Flowers white, in quite thick racemes; sepals 3-6mm. Fruit 2-4cm long, 3-4cm across, 6-winged when young, 6-horned or -angular when

*Pycnocomma littoralis**Pycnocomma littoralis**Ricinus communis*

mature, velvety.

K7; 1-150m; VI, X-XII (VI)

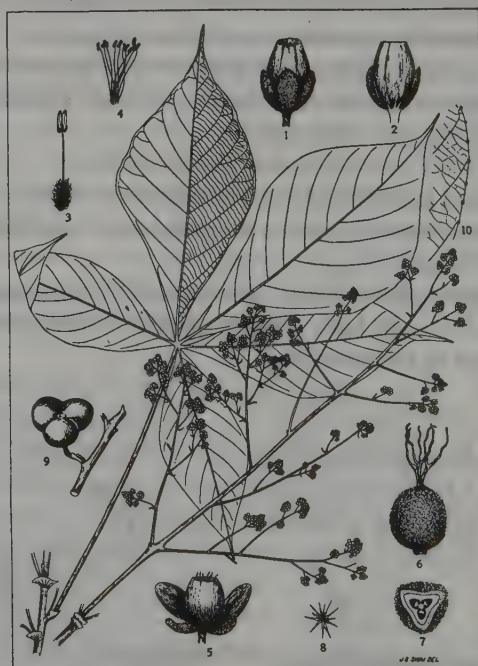
On coral and sand near the sea, and at Maluganji. Mtamboo-Mwitu, Mngambo-Mwitu (SWA).

32. RICINODENDRON

Dioecious. Leaves alternate, digitately compound with 3-7 leaflets. Inflorescences panicle; petals 5. Fruit indehiscent.

***Ricinodendron heudelotii* (Baill.) Pierre**ssp. *africanum* (Müll. Arg.) J. Léon.var. *tomentellum* (Hutch. & E.A. Bruce) Radc.-Sm.[*R. tomentellum* Hutch. & E.A. Bruce]

Tree 30-40m, deciduous; bark pale grey-brown, smooth. Leaflets with long-acuminate apex, glandular-toothed, 10-30 by 5-15cm, stellate-tomentose

*Ricinodendron heudelotii* (Baill.) Pierre ex Pax

1: male flower $\times 3$. 2: male flower showing disc glands erect (stamens removed). 3: stamen $\times 4$. 4: male flower with corolla and calyx removed $\times 2$. 5: female flower $\times 2$. 6: ovary $\times 3\frac{1}{2}$ (often only two loculi developed, fide Kennedy). 7: cross section of ovary $\times 3\frac{1}{2}$. 8: stellate hair $\times 40$. 9: fruit after Hutchinson, F.W.T.A. vol. 1. 10: part of leaf showing glands.

beneath. Flowers white, in 15-30 (male) or 6-10 (female)cm long panicles; petals 5-6mm long. Fruit 2- or 3-lobed, 4-5cm across.

K7; 100-450m; III *

Semi-deciduous forest: Shimba Hills, Rabai, Dzombo. Erimado, Musodo (STAND), Muawa (SWA). Wood soft.

33. RICINUS

Monoecious. Leaves alternate, peltate, palmately lobed. Inflorescences paniculate, the male flowers below, the female flowers above. Petals absent; stamens many.

Ricinus communis L. Map on p.220

Woody herb 1-5m, with hollow stems. Leaves 7-9-lobed, with glandular-serrate margins, up to 1m across. Flowers reddish or purplish green, in 10-30cm long panicles; sepals 5-8mm long. Fruit 3-lobed, 10-18mm across, densely bristly.

K1234567; 500-2100m; I, V-VIII, X

In a wide variety of habitats, from bushed grassland to rainforest; often ruderal.

The castor-oil plant. Kobor (BOR), Mobonu (ILW), Kivunu (KAM), Mwariki (KIK), Menuet (KIP), Mubonebone (LUH), Oldule (MAA), Manwa (MAR),

Mwariki (MER), Koboo (ORM), Pondon (PKT), Fololo (REN), Gitkalat (SOM). The oil (castor oil) is emetic. Kikuyu use a root decoction to help drive out the afterbirth. Seeds poisonous?

34. SAPIUM

Monoecious. White latex present. Leaves alternate. Inflorescence spicate, with female flowers at the base. Petals absent.

1. Upland species; ovary and fruit 2-locular

1. *S. ellipticum*

* Coastal species; ovary and fruit 3-locular

2. *S. triloculare*

1. *Sapium ellipticum* (Krauss) Pax

Tree 4-20m, evergreen, with drooping branches. Bark greybrown, corrugated. Leaves (turning red before falling) elliptic, base cuneate or rounded, apex obtuse to acuminate, margins crenate-serrate, 5-15 by 2-6cm, glabrous or nearly so. Flowers yellow-green, in (sub)terminal spikes to 12cm long; sepals 0.7-1.5mm. Fruit purple to black, 2(-3)-lobed, 6-8 by 8-11mm.

K13456; 1000-2100m; I-VIII, X-XII

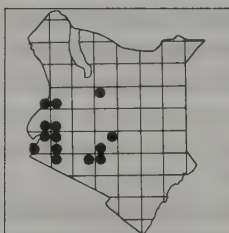
Riverine forest, moist and dry forests (in dry forests usually near water).



Ricinus communis



Sapium ellipticum

*Sapium ellipticum*

Muhathi, Muthathi (KIK), Amoyo, Achaka (LUO), Mugoso (LUH), Mseset (NAN), Ngereni (SAM). Wood white, not durable, liable to borer attack.

2. *Sapium triloculare* Pax & K. Hoffm.

Very similar to *S. ellipticum* in appearance.

K7; Pangani rocks, in remnant forest, Luke & Robertson 1935; alt. 150m; a recent discovery.

35. SAVIA

Monoecious. Leaves alternate. Flowers axillary, fasciculate; sepals & petals 5.

Savia fadenii Radc.-Sm.

ENDANGERED

Shrub 2-3m. Leaves ovate, base cuneate or rounded, apex acuminate, 3-6.5 by 1.4-4cm, glabrous. Flowers white with red lines, axillary; petals 1.5-2mm. Fruit

about 8 by 10mm, 3-lobed.

K7; 1-500m; I, IV *

Forest on limestone (Pangani, Cha Simba, Gandhi, Marenji, Mwachi, Rabai, Mangea).

36. SPIROSTACHYS

Monoecious or dioecious. Milky latex present. Leaves alternate, with glands at petiole apex. Inflorescences axillary; sepals 3-5, petals 0.

1. Petiole 4-10 (-17)mm long; flower spikes 1-2.5cm long

1. *S. africana*

* Petiole 10-25mm long; flower spikes to 7cm long

2. *S. venenifera*

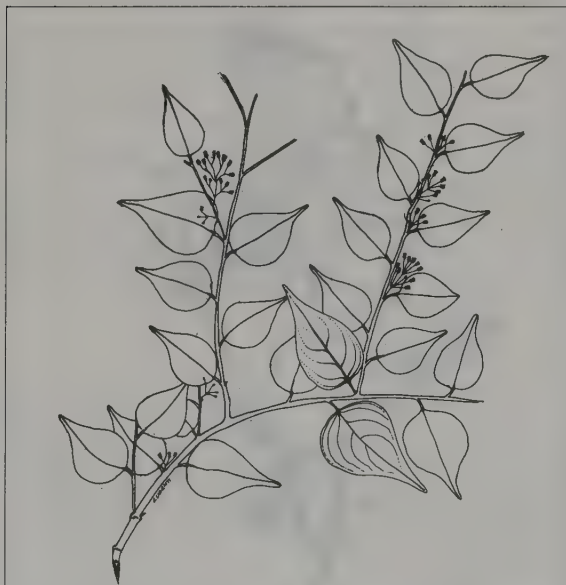
1. *Spirostachys africana* Sond.

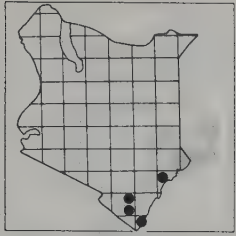
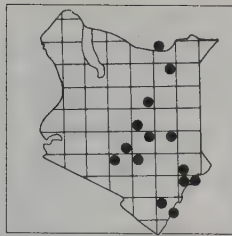
Tree 8-14m; bark smooth or corrugated. Leaves elliptic or slightly ovate, base rounded or cuneate, apex bluntly acuminate, margin crenate-serrate, 4-7 by 1.5-3.5cm, glabrous. Flowers in dense solitary red-brown 'catkins'; sepals less than 1mm. Fruit yellowish, about 7 by 12mm, 3-lobed.

K7; 1-900m; I, VIII *

Riverine or in semi-evergreen bushland.

Tambootie (TRADE), Msarakana (SWA, DUR), Mtolo (PKM). The heartwood is heavy, fragrant and handsome.

*Savia fadenii**Spirostachys venenifera*

*Spirostachys africana**Spirostachys venenifera*

2. *Spirostachys venenifera* (Pax) Pax
(*Excoecaria venenifera* Pax)

Tree 4.5-12m, with pendulous branches. Bark smooth or reticulately fissured, dark grey. Leaves resembling those of *S. africana*, 5-12 by 2-6cm, glabrous. Flowers as in *S. africana*. Fruit green, 3-lobed, 4-7 by 7-9mm. K147; 0-1450m; I, IV-V, VII-VIII, X-XII

Riverine; occasionally in mangrove.

Siricho (BOR), Mtanga (DUR), Mwacha (ILW), Wolkon (ORM), Haiyah-badad, Ayabedeo (SOM), Mtolo (PKM). The latex is poisonous and dangerous to the eyes; the wood is used for doorframes and ceiling beams.

37. SUREGADA

Monoecious (*S. zanzibariensis*) or dioecious (*S. procera*). Leaves alternate. Inflorescence leaf-opposed, cymose; sepals 5-6, petals 0.

1. Leaf apex obtuse; inland species 1. *S. procera*

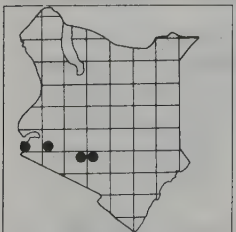
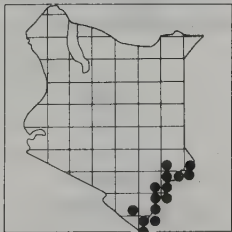
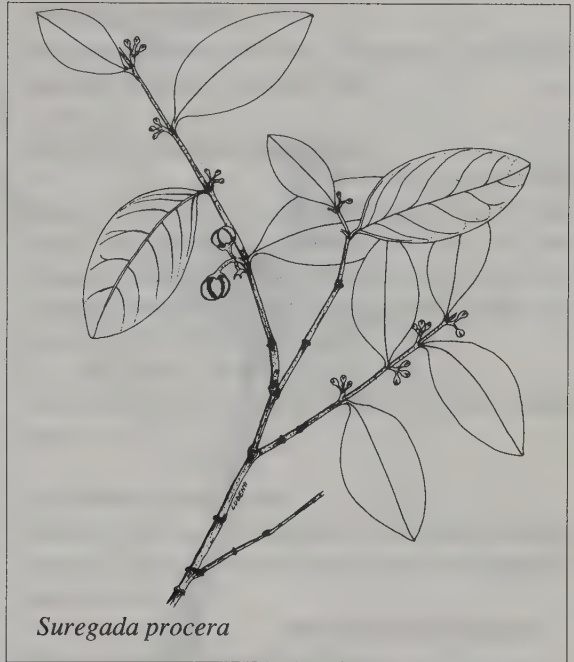
* Leaf apex acute; coast province

2. *S. zanzibariensis*

1. *Suregada procera* (Prain) Croizat

Tree (rarely shrub) 4.5-18m. Leaves elliptic, base cuneate and often slightly unequal, apex obtuse, margins entire to crenate-serrate, 4-12 by 2-5cm, glabrous. Flowers yellow-green, in small subsessile cymes; sepals about 3mm. Fruit green, 3-lobed, 8-11 by 10-13mm. K45; 1450-1800m; I, III-IV, XI-XII *

Dry evergreen forest or riverine forest.

*Suregada procera**Suregada zanzibariensis**Suregada procera*

Mutumbi, Munyenye (KIK), Ruadet (KIP), Ochod-Oboke (LUO), Ol-Durdien (MAA), Mtansu, Mchanja (MER).

2. *Suregada zanzibariensis* Baill.

Shrub or tree 1-6m; bark smooth, grey. Leaves glossy, elliptic or slightly obovate, base cuneate or rounded, apex acute or shortly acuminate, margin entire or serrate, 5-10 by 2-6cm, glabrous, with translucent pustules. Flowers greenish white, in subsessile clusters; sepals 1.5-3mm. Fruit green to orange, 5-6 by 6-8mm, dehiscent to show the orange seeds.

K7; 1-1250m; III-VI, VIII-IX, XI-XII (VIII)

Open forest, *Brachystegia* woodland, evergreen bushland (e.g. near the sea).

Mdimu-Mwitu (SWA), Balmut (BON), Mchungwa Koma (DIG), Mdimu-Tsaka (GIR).

38. SYNADENIUM

Plants with fleshy stems; latex present. Leaves alternate, fleshy. Inflorescence axillary, cymose. Flowers as in *Euphorbia*.

1. Leaves pubescent

3. *S. molle*

* Leaves glabrous or nearly so

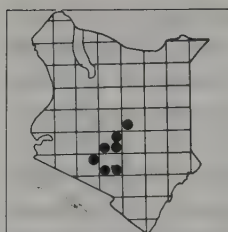
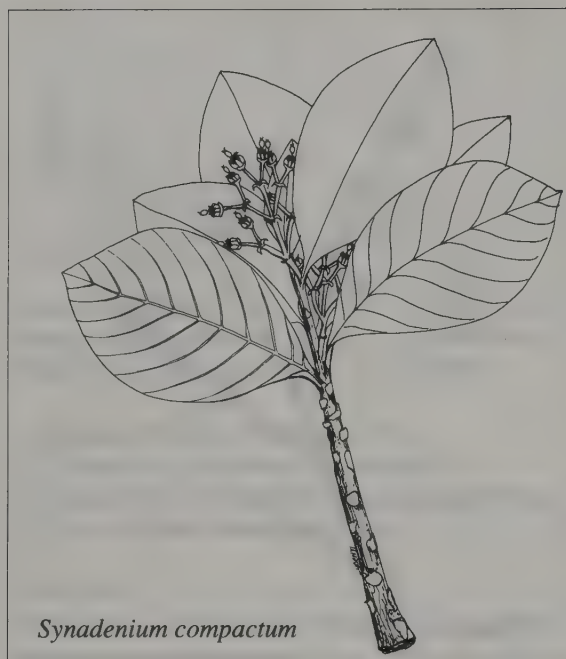
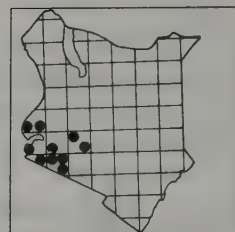
2

2. Midrib keeled beneath

3

* Midrib rounded beneath

4

*Synadenium compactum**Synadenium grantii*

K456; 1150-2100m; V-VI, VIII, X *

Dry forest, riverine, on rocky hills, in secondary bush. Masheget (KIP), Olguobobi, Olgorbobi (MAA). The latex is poisonous.

3. *Synadenium molle* Pax

Shrub or tree 3-9m. Leaves obovate, base cuneate, apex apiculate, margin finely serrate, 5-17 by 2-7cm, finely pubescent. Flowers greenish-red, in dichotomous cymes. Fruit about 10 by 10mm, pubescent.

K47; 900-1250m; V*

Rocky bushland (Mutomo, Mwatate, Kibwezi).

3. Coastal species; glandular rim of involucre yellow

4. *S. pereskii*folium

- * Inland species; glandular rim red

1. *S. compactum*

4. Inflorescence of 2-5 cymes, these 2-6-forked

2. *S. grantii*

- * Inflorescence of 2-4 cymes, these with solitary cyathea or once forked

5. *S. volkensii*

1. *Synadenium compactum* N.E.Br.

RARE

Shrub or tree 2-7m. Leaves elliptic or obovate, base cuneate, apex apiculate, margins finely serrate, 6-18 by 3-9cm, glabrous; midrib keeled beneath. Flowers reddish-purple, in short cymes. Fruit about 7.5 by 7.5mm, pubescent.

K3467; 700-1850m; II, IV-V *

Riverine or in rocky sites.

Kyatha (KAM, EMB), Watha (KIK). The latex is very poisonous.

2. *Synadenium grantii* Hook.f.

Shrub or tree 2-10 m. Leaves elliptic or obovate, base cuneate, apex apiculate, margins finely serrate or entire, 6-15 by 2-6cm, glabrous. Flowers red, in open dichotomous cymes. Fruit red, about 7 by 8mm, pubescent.

4. *Synadenium pereskii*folium (Baill.) Guill.

(*S. glaucescens* sensu KTS)

Shrub or tree 2-5m. Leaves obovate, base cuneate, apex apiculate, margins entire, 7-19 by 3.5-9cm, glabrous; midrib keeled beneath. Flowers yellow-green, in long dichotomous cymes. Fruit about 7 by 7mm, pubescent.

K7; 1-500m; VIII, XI*

Coastal/riverine woodland

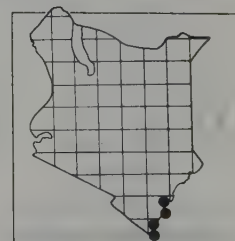
Kinyuny (SWA), Tupa (DIG), Tiha (GIR), Kyatha (KAM). Used as a fish poison.

5. *Synadenium volkensii* Pax

Tree to 18 m. Leaves obovate, with minutely serrate margin, to 16 by 8cm, glabrous or nearly so. Flowers yellow-green, in open inflorescences. Fruit about 7 by 8mm, densely pubescent.

K6; collected once on the footslopes of Kilimanjaro, in deciduous thicket.

*Synadenium pereskii*folium



*Thecacoris usambarensis***39. THECACORIS**

Dioecious. Leaves alternate. Inflorescences axillary, racemose; sepals 5, petals absent.

Thecacoris usambarensis Verdc.

ENDANGERED

Shrub 1.5-4m. Leaves elliptic, base cuneate, apex shortly and bluntly acuminate, 5-11 by 3-5.5cm, glabrous or sparsely hairy beneath. Flowers yellow-green, in dense spike-like racemes; sepals about 1 mm long. Fruit 3-lobed, 3.5 by 7mm.

K7; 100-200m; VIII-IX*

Limestone cleft (Cha Simba, Chonyi, Rabai, Mitunguni).

40. ZIMMERMANNIA

Monoecious. Leaves alternate, with large persistent stipules. Flowers solitary or in fascicles; sepals 5, petals absent.

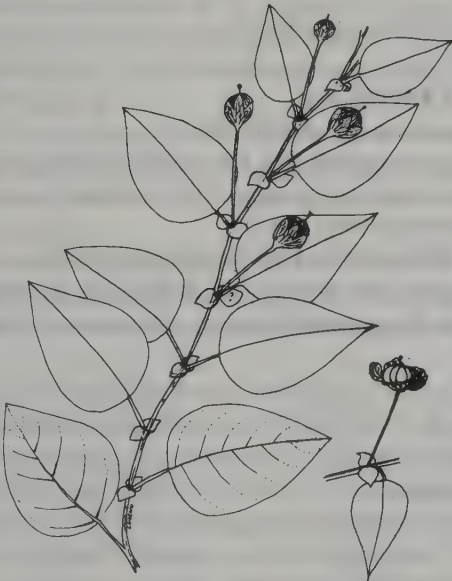
Zimmermannia ovata E.A. Bruce

VULNERABLE

Shrub or tree 1-5m. Stipules leafy, 7-12 by 7-12mm. Leaves ovate, base rounded, apex acute, 3-8 by 2-5cm, glabrous. Flowers pale green, with a large orange-yellow disk; sepals 6-13 by 5-10mm. Fruit 3-lobed, 7-9 by 11-13mm.

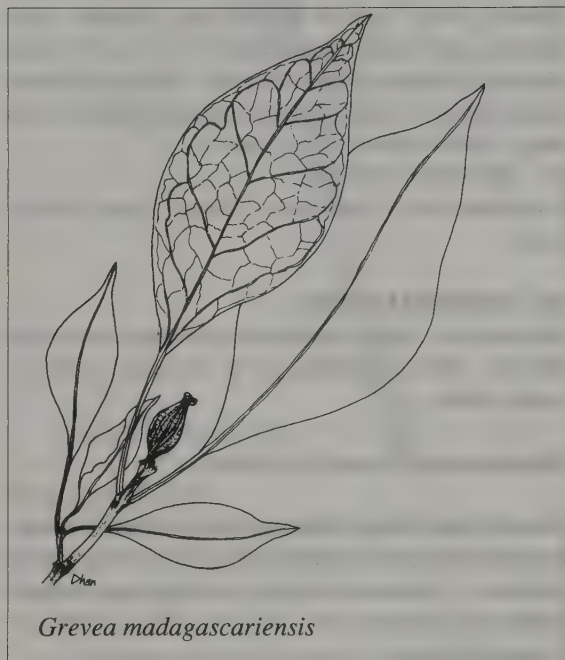
K7; 1350-1800m; IV-V*

Endemic to the drier parts of Ngangao Forest, Taita Hills.

*Zimmermannia ovata*

139a. MONTINIACEAE

Leaves exstipulate, opposite. Flowers dioecious, the male in axillary inflorescences, the female solitary and terminal; calyx tube shortly 3-5-lobed; petals 3-5; stamens 3-5. Fruit indehiscent.



1. GREVEA

Grevea madagascariensis Baill. ssp. *keniensis* Verdc. (*Grevea* sp. nov. of KTS)

Shrub or small tree 2-3m. Leaves blotchy in colour, opposite, elliptic or ovate, base cuneate, apex acuminate, 7-20 by 3-8.5cm, glabrous. Male inflorescence 1-4cm long with flowers to 4mm; female flowers to 5mm long. Fruit crowned by persistent style, ellipsoid, about 2.5 by 1cm.

K7; near sea-level; — *

Only known from Diani and Kaya Kinondo forest.

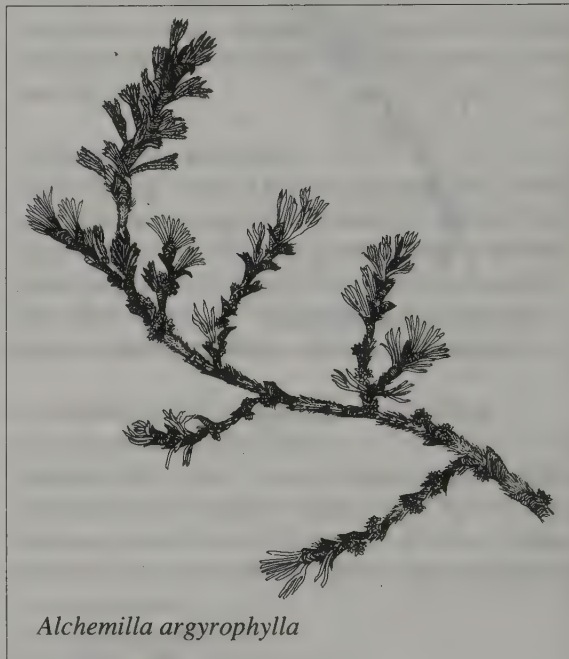
143. ROSACEAE

Leaves alternate, stipulate. Flowers regular or irregular, monoecious or dioecious, perigyn or epigyn; sepals 4-5, sometimes with epicalyx. Petals 5, or 0. Stamens 1-many. Fruit of 1-many free or fused carpels.

1. (Scrambling) shrubs with reflexed prickles

5. *Rubus*

- * Unarmed plants 2
- 2. Leaves or leaf-lobes narrow, <5mm wide 3
- * Leaves >10mm wide 4
- 3. Leaves linear, needle-like 2. *Cliffortia*
- * Leaves 3-lobed, the lobes 4-10 by 2-5mm 1. *Alchemilla*
- 4. Leaves imparipinnate, with winged petiole 3. *Hagenia*
- * Leaves simple 4. *Prunus*



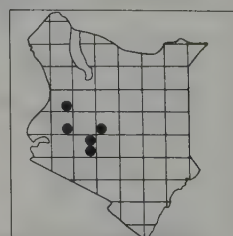
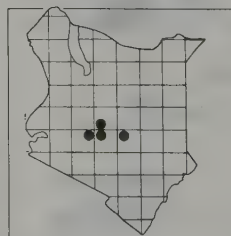
1. ALCHEMILLA

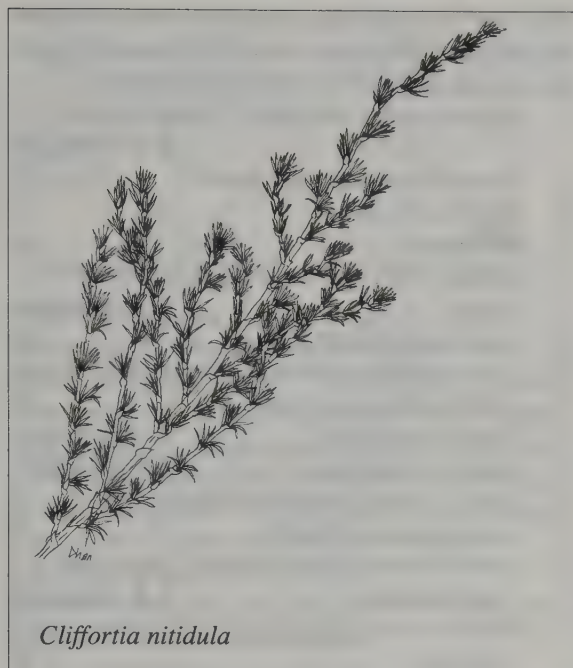
Alchemilla argyrophylla Oliv.

Shrub, occasionally to 2.5m, covered in silvery hairs. Flowers in axillary groups of 5-7, less than 2mm long. Fruit hidden in the calyx.

K34; 2850-4200m; I, III-IV, VI, VIII, X-XII

Moorlands and heath zone of the high mountains: Kenya, Nyandarua/Aberdares, Cherangani, ?Elgon.





2. CLIFFORTIA

Monoecious(?). Leaves heather-like. Petals 0. Flowers male or female, monoecious. Stamens 4. Fruit tiny.

Cliffortia nitidula RE & TCE Fries

Much-branched shrub 2-5m. Leaves trifoliate, arranged in fascicles; leaflets needle-like, 4-7mm long. Flowers sessile, in the leaf-fascicles; to 4mm long. Fruit 3mm long.

K34; 2850-3300m; VI *

Bamboo glades, moorland; may form pure stands.

3. HAGENIA

Dioecious or polygamous. Leaves imparipinnate. Flowers many, in panicles. Petals 0 (or rudimentary). Stamens 12-20. Female flowers with enlarging sepals.

Hagenia abyssinica (Bruce) J.F. Gmel.

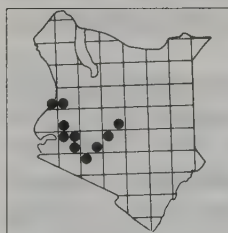
Tree 5-25m, often with a crooked bole; bark redbrown, fissured, peeling. Leaves imparipinnate, with winged petiole and 9-17 leaflets 10-15 by 3-5cm, with serrate margin, pubescent. Flowers greenish or white, turning reddish in female flowers, in drooping terminal panicles to 0.5m long; corolla 7.5(male) to 18(female)mm across.



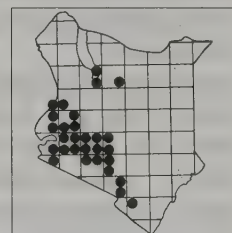
K23456; (1800)2300-3300m; I-III, V-IX, XII.

Dominant in the woodland zone just above bamboo; also in moist forest below the bamboo.

Hagenia (common), Mumondo (KIK), Bondet (KIP), Omukunakuna (KIS), Olboldo (MAA), Seweruwa (MAR), Mujogajoga (MER), Mjororuet (NAN), Sorwa (PKT), Sokoruet (SEB). Bark infusion used as anthelmintic; wood used for carpentry.



Hagenia abyssinica



Prunus africana

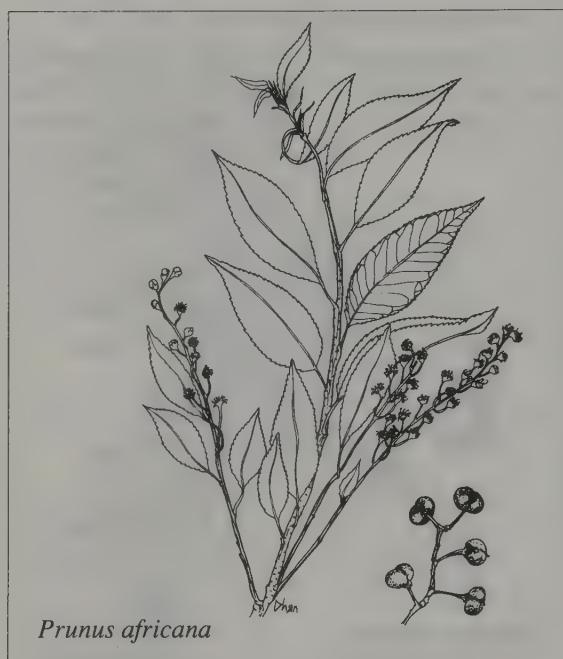
4. PRUNUS

Leaves simple. Stipules caducous. Flowers bisexual. Petals 5; stamens 20-33. Fruit a 1-2-seeded drupe.

Prunus africana (Hook.f.) Kalkm.

(*Pygeum africanum* Hook.f.)

Evergreen tree 6-25m (rarely a shrub in lava forest);



bark grey-black, corrugated. Leaves often with red petiole and midrib, ovate, elliptic or obovate, base cuneate or rounded, apex obtuse to shortly acuminate, margin crenate-serrate, 4-16 by 1.5-7cm, glabrous. Flowers white or cream, in axillary racemes 3-8cm long; corolla lobes to 2mm long. Fruit red to purpleblack, ellipsoid, up to 8 by 12mm.

K134567; (900)1350-2750(3150)m; I-IV, VI, VIII-IX, XI-XII (II)

Moist evergreen forest, riverine; often in remnants or on margins.

Red Stinkwood (TRADE), Mueri (STAND), Muiru (KIK), Mutimailu (KAM), Kiburabura (KIS), Mwiritisa (LUH), Tenduet (ELG, KIP, NDO), Ol-Koijuka (MAA), Tendwet (MAR), Mweria (MER), Twendet (NAN), Lemalan (SAM), Armaatet, Oromoti (SEB), Murugutu (WAT). Excellent timber, used for house-building and furniture; a bark infusion is used by the Luhya as a purgative. Bark used for prostate medicine.

5. RUBUS

Shrubs or scramblers, often with arching shoots which may root when touching the ground. Stems spiny. Leaves compound, with spines on leafstalk and midrib beneath. Sepals 5; petals 5 or 0; stamens many. Fruit consisting of crowded drupes.

Note. The sterile, arching shoots may differ in number of leaflets and hairiness from the flowering shoots; they are not dealt with in key or descriptions.

1. Stems covered with sticky, stalked glands **8. *R. volkensii***
- * Stems without obvious glands **2**
2. Stems glabrous **3**
- * Stems hairy **6**
3. Leaves with 3 or 5 leaflets arising from one point **7. *R. steudneri***
- * Most leaves imparipinnate **4**
4. Leaves whitish-tomentose beneath **4. *R. niveus***
- * Leaves glabrous or nearly so **5**
5. Petals 0-4mm long **5. *R. pinnatus***
- * Petals 6-10mm long **6. *R. scheffleri***
6. Leaves whitish-tomentose beneath **7**
- * Leaves greenish beneath **9**
7. Sepals reflexed after flowering; stems with stellate hairs **7. *R. steudneri***
- * Sepals erect or spreading after flowering; hairs simple **8**
8. Petals larger than sepals, 12-16mm long **2. *R. friesiorum***
- * Petals shorter than, or equal to, sepals; petals 6-9mm long **1. *R. apetalus***
9. Leaves imparipinnate with 5-7 leaflets **1. *R. apetalus***
- * Leaves with 3 or 5 leaflets from one point **10**
10. Sepals reflexed after flowering; stems with stellate hairs **7. *R. steudneri***
- * Sepals erect or spreading after flowering; hairs simple **3. *R. keniensis***

1. *Rubus apetalus* Poir.

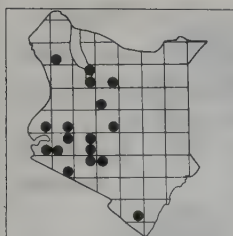
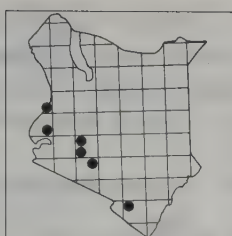
(*R. exsuccus* A.Rich., *A. rigidus* Sm., *R. adolfi-friedericii* Engl.)

Scrambling shrub 1-3m. Stems hairy, with hooked prickles 2-6mm long. Leaves with 3-7 leaflets; leaflets ovate or elliptic, with serrate margins, the terminal one 4-9 by 3-7.5cm, pubescent or whitish-tomentose beneath. Flowers with or without petals, in panicles 3-21cm long; petals to 9mm long. Fruit yellow, red, purple or black, to 1.5cm long.

K123456; 1450-2700m; I-II, VI-VII, XI-XII

Forest margins, secondary bush/grassland, riverine forest.

Mutare (KIK). Fruit edible.

*Rubus apetalus**Rubus niveus***2. *Rubus friesiorum* C.E. Gust. ssp. *friesiorum***

Suberect shrub of uncertain size; stems red, hairy with hooked prickles to 3mm. Leaves with 3 leaflets (occasionally simple in the inflorescence); leaflets ovate or elliptic, with serrate margins, the terminal one 2.5-8.5 by 1.5-6cm, white-tomentose beneath. Flowers pink (rarely white), in rather dense corymbs to 4cm long; petals 12-16mm long. Fruit not seen.

K34; 2700-3400m; I-VIII, XII *

Bamboo/Hagenia zone or heath zone. Endemic to Mt Kenya and Nyandarua (Aberdares).

3. *Rubus keniensis* Standl.**RARE**

Scrambling shrub 1-2.5m; stems reddish, hairy, with hooked prickles to 3mm. Leaves with 3 leaflets; leaflets ovate or elliptic, with serrate margins, the terminal one 8-11 by 4-8cm, densely (greenish) hairy beneath. Flowers white or pink, in loose panicles to 26cm long; petals 11-15mm long. Fruit red, ovoid, nearly always galled, to 4cm long.

K34; 1950-2750m; IV, VIII-XII *

Forest margins; also riverine or in secondary forest. Endemic to Mt Kenya and Nyandarua; one sheet (Webster EAH 10004) has a label "Endebess" which I find hard to believe.

Mutare (KIK).

4. *Rubus niveus* Thunb.

Scrambling shrub 1.5-3m. Stems glabrous, with whitish bloom and hooked prickles 4-7mm. Leaves with 5-7 leaflets; leaflets ovate, with serrate margins, the terminal one 5-17 by 4-8cm, white-tomentose beneath. Flowers pink or mauve, in rather dense corymbs 2-5cm long; petals shorter than calyx. Fruit red, to 1cm.

K3457; 1350-1800m; V-VI, X-XII *

Introduced and gone wild along rivers, in forest margins, secondary bushland and roadsides.

Mutare (KIK), Zirubain (TAI).

*Rubus pinnatus***5. *Rubus pinnatus* Willd.**

Scrambling shrub 1.5-3m. Stems glabrous, sometimes with white bloom, and with hooked prickles 2-6mm. Leaves with 5-9 leaflets; leaflets ovate, with serrate margins, the terminal one 3-7 by 1.5-4cm, glabrous or nearly so. Flowers white (pink), in panicles 8-36cm long; petals absent or up to 4mm long. Fruit red to black, to 1cm.

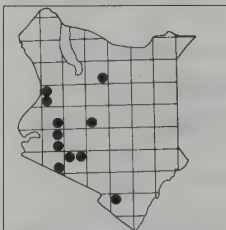
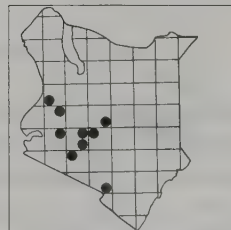
K123467; 1500-2750m; II, V, VII-VIII, XI-XII *

Riverine, disturbed forest, forest margins, secondary bushland.

Tagaimamiet (KIP), Engainagut (MAA), Mowonwo (TUG). Fruit edible.

6. *Rubus scheffleri* Engl.

Scrambling shrub 1.5-3m or a liana to 12m; stems glabrous, often with whitish bloom, and hooked prick-

*Rubus pinnatus**Rubus scheffleri*

les to 5mm. Leaves with (3)5-7 leaflets; leaflets ovate, with serrate margins, the terminal one 4.5-11 by 3-8cm, glabrous or nearly so. Flowers white or pink, in panicles to 28cm long; petals 6-10mm long. Fruit red or black, to 2cm.

K2346; 1600-2550m; IV, IX-XII *

Forest margins.

8. *Rubus steudneri* Schweinf.

Scrambling shrub 1-3.6m with glabrous or tomentose stems, prickles hooked, to 4mm. Leaves with 3 leaflets or palmately 5-foliolate; leaflets ovate or obovate, with serrate margins, the terminal one 4-15 by 4-10cm, white-tomentose (in var. *aberensis*) or only slightly hairy (in var. *dictyophyllus*) beneath. Flowers white, pink or mauve, in panicles to 30cm long; petals 7-11mm long. Fruit red to black, to 1.5cm.

K3456; 1900-3150m; I-III, V-XII

Forest margins, bamboo margins.

- var. *aberensis* C.E. Gust. -Mau, Elgon, Cherangani

- var. *dictyophyllus* (Oliv.) R.Grah. -Common on Mt. Kenya and Nyandarua (Aberdares).

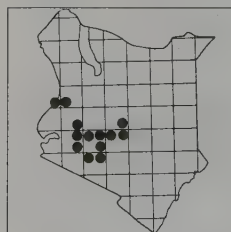
Mutare (KIK), Tagaimamiet (KIP), Engaiyagut (MAA). Fruit edible.

9. *Rubus volkensii* Engl.

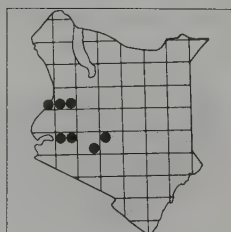
Erect shrub 1-4m; stems covered in sticky stalked glands; prickles 2-4mm. Leaves with (3-)5 leaflets; leaflets ovate, with serrate margins, the terminal one 6-12 by 3.5-7cm, pubescent. Flowers white to yellow, in a panicle to 8cm long. Fruit orange or red, to 1.5cm. K2345; 2150-3450m; I-V, VIII-IX, XI-XII.

Bamboo margins, *Hagenia* - *Hypericum* woodland, forest margins or secondary bushland.

Mutare (KIK), Tagaimamiet (KIP), Engaiyaguji (MAA). Fruit edible.



Rubus steudneri



Rubus volkensii

143A. CHRYSOBALANACEAE

Leaves simple, alternate, stipulate. Flowers somewhat irregular, 5-merous. Fruit a dry or fleshy drupe.

1. Leaves glabrous beneath, or nearly so

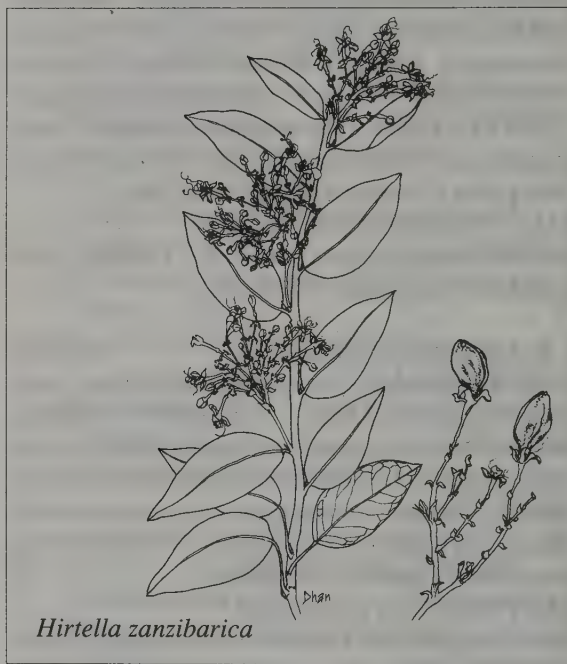
1. *Hirtella*

* Leaves tomentose beneath

2. *Parinari*

1. HIRTELLA

Leaves simple. Flowers bisexual. Petals 5; stamens 7-9; staminodes present.



Hirtella zanzibarica

Hirtella zanzibarica Oliv.

Tree 6-20m, evergreen; buttressed at base; bark black, smooth. Leaves shiny, ovate, base rounded or cuneate, apex acute or shortly acuminate, 4-10 by 1.5-4cm, glabrous or nearly so; stipules linear, to 3mm. Flowers white, in axillary or terminal panicles 2-15cm long; corolla to 5mm long, with long-exserted stamens. Fruit reddish, ellipsoid, 18-23 by 11-13mm.

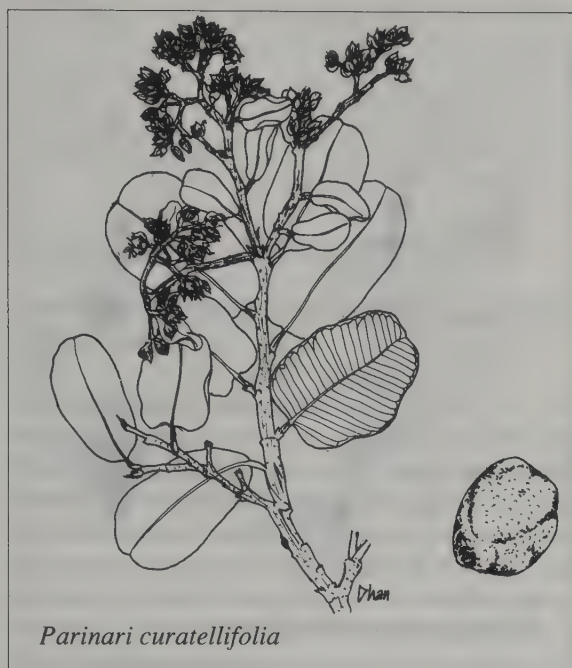
K7; 1-450m; II, V, XI-XII *

Moist forest: Shimba Hills and South Coast.

Mwawa (DIG). Fruit edible.

2. PARINARI

Leaves simple, with 2 glands at top of petiole. Stipules caducous. Flowers bisexual, petals 5; stamens 20-40. Fruit a 1-seeded drupe.

***Parinari curatellifolia* Benth.**

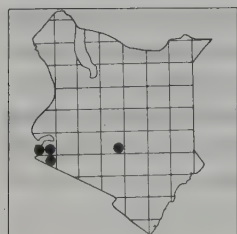
Tree 3-15m; bark grey, corky, fissured. Leaves elliptic, base (unequally) rounded or subcordate (cuneate at the coast), apex rounded to emarginate, 4-9 by 2-5cm, silvery or yellowish-tomentose beneath. Flowers white or pale pink, in axillary terminal panicles to 5cm long; corolla 2-4mm long. Fruit yellow, ellipsoid, to 37 by 25mm.

K4567; 50(coast), 1100-1900m; III, VI-VII, IX-X, XII *

Woodland grassland, often in rocky sites.

Mura (EMB), Mutaburu (WAT). Fruit edible.

Note. Leaves and habit like *Pappea capensis*, from which it is distinguished by the tomentum on the leaves.

*Parinari curatellifolia***144. DICHAPETALACEAE**

(including CHAILLETiaceae)

Trees, shrubs or lianas. Stipules present, persistent or caducous. Leaves alternate, simple, entire. Inflorescences axillary, sometimes arranged on leafless shoots, cymose; peduncle free or adnate to petiole. Flowers small, regular or zygomorphic, (4-)5 merous; pedicel usually articulate; petals equal or very unequal, entire or bilobed at apex. Fruit a drupe, 1-3(-4) seeded.

1. Petals equal, more or less free **1. *Dichapetalum***

* Petals clearly unequal, united in a distinct tube

2. *Tapura*

1. DICHAPETALUM

Leaves nearly always with some glands beneath. Flowers actinomorphic, petals equal, entire or bilobed. Stamens 5, staminodes 5.

1. Leaf-base subcordate; stipules lobed

6. *D. mossambicense*

* Leaf-base rounded or cuneate; stipules entire or caducous **2**

2. Ovary with short hairs or long straight hairs **3**

* Ovary with long, wavy, woolly hairs **5**

3. Sepals 1-3mm long **5. *D. madagascariense***

* Sepals 3-6mm long **4**

4. Mature leaves with hairy midrib; fruit ellipsoid

8. *D. stuhlmannii*

* Mature leaves glabrous or nearly so; fruit obovoid

7. *D. ruhlandii*

5. Found at altitudes above 1400m **2. *D. eickii***

* Found at altitudes below 450m **6**

6. Leaves puberulous or pubescent beneath

1. *D. arenarium*

* Leaves only hairy on midrib and large veins **7**

7. Ovary and stigma 2-merous **9. *D. zenkeri***

* Ovary and stigma 3-merous **8**

8. Petals glabrous inside; inflorescence a regular dichasium

4. *D. fruticosum*

* Petals hairy inside; inflorescence a scorpioid cyme

3. *D. fadenii*

1. *Dichapetalum arenarium* Bret.

(*D. deflexum* of checklist)

Liana to 20m or (climbing) shrub. Leaves elliptic or ovate, base cuneate, obtuse or rounded, sometimes asymmetrical, apex rounded or obtusely acuminate, 6-15 by 3-8cm, shortly pubescent but glabrescent above. Flowers white, inflorescence on a 4-13mm long

peduncle; petals 2.5-3mm long. Fruit brownish green, subellipsoid or reniform, 14-20 by 9-15mm, densely tomentellous, tuberculate.

K7; 1-450m; I, XI-XII *

Evergreen forest (edges or remnants): coast S of Mombasa.

Mtanda (DIG).

2. *Dichapetalum eickii* Ruhl

Liana to 30m or (scrambling) shrub. Leaves (narrowly) elliptic or (ob)ovate, base cuneate or obtuse, apex acute or acuminate, 5-10 by 2-4(6)cm, sparsely appressed-puberulous but soon glabrescent. Flowers cream, inflorescence up to 30-flowered, on a 0-4(9)mm long peduncle; petals 1.5-2.5mm long. Fruit obovoid-ellipsoid, up to 25 by 15mm, densely rusty-brown tomentellous.

K7; 1400-1850m; I-II, IX, XII *

Moist upland forest of Taita Hills.

3. *Dichapetalum fadenii* Breteler **ENDANGERED**

Liana of unknown size. Leaves elliptic, base rounded or obtuse, often slightly unequal-sided, apex rounded or obtuse, 6-11 by 3-5cm, densely short-hairy. Flowers white or pale yellow, in an inflorescence on a 1-3mm long peduncle; petals 3-3.5mm long. Mature fruit unknown, but young fruit tomentose.

K7; 200-250m; II *

Forest on limestone, only known from Cha Simba and Mangea.

4. *Dichapetalum fruticosum* Hiern

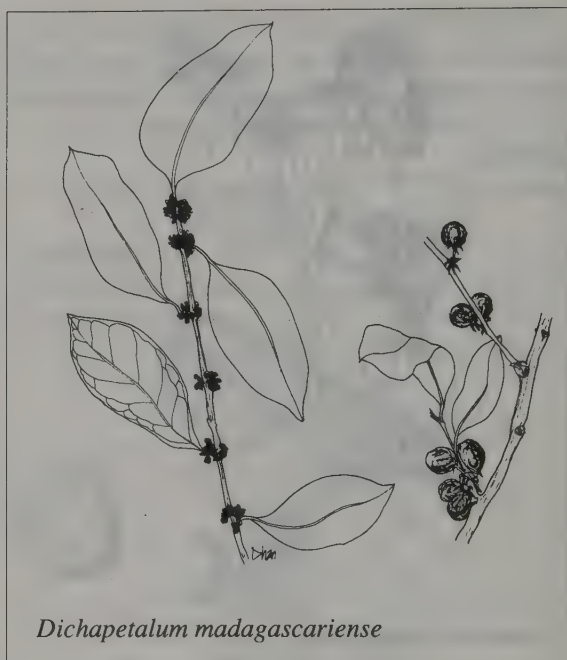
Liana or shrub. Leaves elliptic or obovate, base obtuse or cuneate, apex obtuse, rounded or acuminate, 9-14 by 3-6cm, hairy on midrib and veins but soon glabrescent. Flowers in 15- to many-flowered inflorescences, on a 5-20mm long peduncle, often adnate to the petiole; petals 2.5-5mm long. Fruit obovoid-ellipsoid, 10-15 by 7.5mm, rusty-tomentose.

K7; 400-450m; II *

Moist lowland forest (edge): Shimba Hills, Pangani.

5. *Dichapetalum madagascariense* Poir.

Liana, (scrambling) shrub or small tree to 10m. Leaves (ob)ovate or elliptic, base cuneate or rounded, apex shortly acuminate (or rounded to emarginate), 5-17 by 2-10cm, glabrous to pubescent or tomentose and glabrescent, sometimes with hairy domatia in the axils of



Dichapetalum madagascariense

the veins. Flowers white or yellow in a few- to many-flowered inflorescence on a 0-15mm long peduncle. Fruit orange, globose or ellipsoid, 10-60 by 10-25mm, almost glabrous or puberulous-tomentellous.

1. Petals 2.5-4mm long, pistil usually longer than petals, 2.5-6mm - var. *madagascariense*

* Petals 1.7-2mm long, pistil shorter than petals, 1-1.2mm - var. *brevistylum*

-var. *madagascariense*

K7; 1-450m; III, IX-XII *

Coastal forests.

Jarumata (DIG), Kitwodzi (GIR).

-var. *brevistylum* Bret.

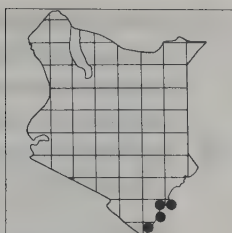
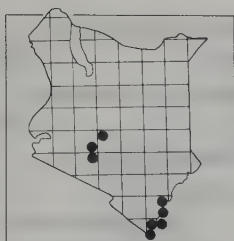
K4; 2000-2400m; I, III *

Moist upland forest.

6. *Dichapetalum mossambicense* (Kl.) Engl.

Liane to 6m or (scrambling) shrub to 3m. Leaves elliptic or obovate, base subcordate, apex acute or shortly acuminate, 5-15 by 3-7cm, densely pubescent or tomentose beneath, more or less puberulous above. Flowers white, in inflorescences with up to 100 flowers, on a 15-25mm long peduncle, often shortly adnate to the petiole. Fruit ovoid-ellipsoid, 15-25mm by about 10mm, densely tomentose.

K7; 1-300m; VIII, XI *



Dichapetalum madagascariense *D. zenkeri*

Shimba Hills, Marenji and Buda, Gongoni, Mkon-gani; forest.

7. *Dichapetalum ruhlandii* Engl.

Shrub, or liana to 10m. Leaves elliptic or obovate, base cuneate or rounded (rarely subcordate), apex rounded or obtusely and shortly acuminate, 9-22 by 4-13cm, glabrous or nearly so. Flowers white or yellow, in many-flowered inflorescences on a 3-22mm long peduncle; petals 3-4.5mm long. Fruit obovoid, apiculate, up to 30 by 20mm, brown-velutinous.

K7; 50-1800m; IX, XI *

Evergreen forest or secondary bushland: Taita Hills and coast S of Diani.

Ludi (TAI). Very poisonous.

8. *Dichapetalum stuhlmannii* Engl.

Shrub or tree to 12m. Leaves elliptic or obovate, base cuneate to rounded, apex obtuse, acute or emarginate, 8-13 by 3-7cm, densely short-hairy when young, the indument sometimes persistent beneath and on the midrib. Flowers white or yellow, up to 40 in a subglobose head on a 5-15mm long peduncle; petals 3-4mm long. Fruit yellow, subellipsoid or subglobose, 15-25 by 10-20mm, velutinous-tomentose.

Occurs in Tanzania, and has been found just across the border, near Taveta.

Secondary bushland, thickets.

Poisonous to livestock.

9. *Dichapetalum zenkeri* Engl.

(*D. keniense* Hutch. & Bruce)

Shrub 0.9-3m or tree to 9m (Greenway 12209), or a liana. Leaves elliptic or (ob)ovate, base rounded or cuneate, apex gradually acuminate, 4-15 by 1.5-5cm, hairy on the midrib only (when very young also on the veins). Flowers white or cream, in few-to many-flowered inflorescences, on a 1-15mm long peduncle; petals 2.5-3mm long. Fruit orange, ellipsoid, ovoid, or

reniform, 20-45 by 10-25mm, densely velutinous.

K7; 50-300m; I, III, V-VI, XI *

Evergreen or semi-deciduous forest.

2. TAPURA

Trees or shrubs. Flowers zygomorphic; pedicel articulate; 1 or 2 petals larger than the others and lobed at apex.

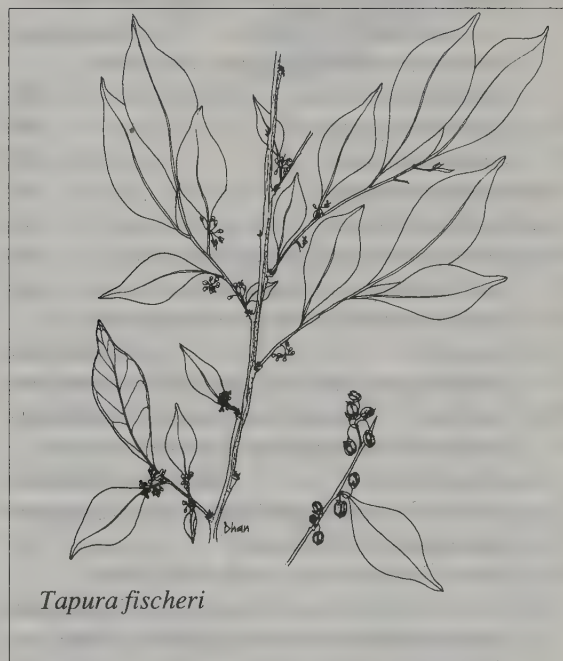
***Tapura fischeri* Engl.**

Shrub or tree to 12(24)m; bark grey-brown, flaking in small patches. Leaves elliptic or obovate, base cuneate or rounded, often unequalsided, apex shortly acuminate, 4-10 by 2-5cm, glabrous or somewhat hairy, especially on midrib and veins. Flowers white, in an up to 35-flowered inflorescence; peduncle 5-8mm long, adnate to the petiole. Fruit ovoid or obliquely ellipsoid up to 5 by 4mm, glabrous or tomentose.

K7; 1-900m; XI-XII *

Dry evergreen forest, swamp forest, riverine forest: Taveta, Bura and Diani.

Musigisigiya-jovu (ILW), Mbamba (TAV). Wood hard and tough.

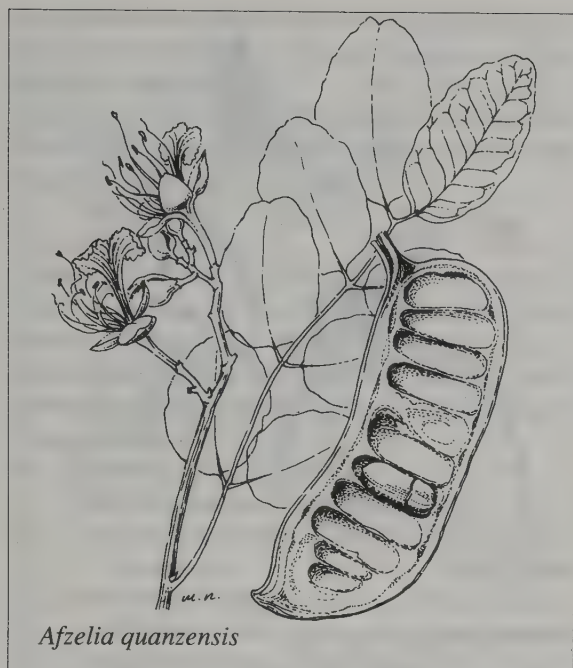


Tapura fischeri

146. CAESALPINIACEAE

Trees, shrubs or lianas. Leaves usually pinnate, sometimes bipinnate. Inflorescence usually a spike or panicle of racemes. Flowers rather irregular; petals usually 5; stamens 10 or less, rarely many.

- | | | | |
|---|---------------------------|---|----------------------------|
| 1. Leaves simple | 2 | 17. Leaves with persistent large stipules and petiolule of leaflets twisted | 18 |
| * Leaves compound | 4 | * Leaves with caducous stipules or exstipulate, or petiolules straight | 19 |
| 2. Leaves entire | 11. <i>Gigasiphon</i> | 18. Stipules leafy, 4-47 by 6-30mm, obtuse or acute; flowers white or cream | 13. <i>Julbernardia</i> |
| * Leaves two-lobed at the apex | 3 | * Stipules not leafy, 6-16 by 2-8mm, 2-topped; flowers blue or mauve | 16. <i>Paramacrolobium</i> |
| 3. Midrib extended for 2-3mm; leaves pubescent, but not rusty, to 12.5cm long | 2. <i>Bauhinia</i> | 19. Leaflets increasing in size towards the top of the leaf | 20 |
| * Midrib not extended; leaves rusty-pubescent beneath, to 17cm long | 18. <i>Piliostigma</i> | * Leaflets more or less equal | 21 |
| 4. Plants with prickles or spines | 5 | 20. Petiole 1-5mm long | 7. <i>Cynometra</i> |
| * Plants unarmed | 9 | * Petiole 10-30mm long | 3. <i>Brachystegia</i> |
| 5. Prickles only on the stem and branches | 6 | 21. Leaflets glabrous (except sometimes near base) | 22 |
| * Prickles on stem, branches, and leaf rachis | 8 | * Leaflets puberulous or pubescent | 29 |
| 6. Leaf rachis flattened | 17. <i>Parkinsonia</i> | 22. Leaflets sessile | 23 |
| * Leaf rachis rounded | 7 | * Leaflets with a short petiole | 24 |
| 7. Young branches glabrous; leaflets 4-9mm wide; Central and coast | 4. <i>Caesalpinia</i> | 23. Leaf petiole 1-3mm long | 7. <i>Cynometra</i> |
| * Young branches shortly pubescent; leaflets 1.2-5mm wide; Northeast | 17. <i>Parkinsonia</i> | * Leaf petiole more than 5mm long | 22. <i>Tamarindus</i> |
| 8. Petals to 3mm long; fruit winged; leaf rachis prickles often in three's | 19. <i>Pterolobium</i> | 24. Tree 4-24(35)m; petiolules twisted; flowers with 1 petal | 1. <i>Afzelia</i> |
| * Petals more than 6mm long; leaf rachis prickles in two's | 30 | * Shrub or tree 1-7m; petiolules straight; flowers with 5 petals | 5. <i>Cassia</i> |
| 9. Leaves once pinnate | 10 | 25. Leaflets 0.5-10 by 0.2-5cm; trees of coastal forest | 26 |
| * Leaves bipinnate | 25 | * Leaflets less than 3.5 by 1cm; plants of drier sites | 27 |
| 10. Leaflets alternate | 11 | 26. Leaflets subopposite, sessile | 4. <i>Caesalpinia</i> |
| * Leaflets opposite | 14 | * Leaflets alternate, stalked | 10. <i>Erythrophleum</i> |
| 11. Leaflets with pellucid dots or streaks | 12 | 27. Leaflets glabrous | 4. <i>Caesalpinia</i> |
| * Leaflets without pellucid dots or streaks | 13 | * Leaflets (minutely) puberulous | 28 |
| 12. Leaflets rounded at apex, 11-28 per leaf | 6. <i>Cordyla</i> | 28. Petals more than 16 by 15mm; fruits 10-27 by 2-3.7cm | 8. <i>Delonix</i> |
| * Leaflets acuminate, 5-7 per leaf | 15. <i>Oxystigma</i> | * Petals less than 12 by 7mm; fruits 6.5-13 by 1-2cm | 17. <i>Parkinsonia</i> |
| 13. Leaflets 5-15 per leaf, subequal | 9. <i>Dialium</i> | 29. All filaments straight; seeds with an areole on each face | 21. <i>Senna</i> |
| * Leaflets 3-5 per leaf, the upper much larger than the lower | 20. <i>Scorodophloeus</i> | * 3 filaments with a S-bend; seeds smooth, without areoles | 5. <i>Cassia</i> |
| 14. Leaflets in 1 pair, gland-dotted | 12. <i>Hymenaea</i> | 30. Hooks on stem pointing down; fruit winged | 14. <i>Mezoneuron</i> |
| * Leaflets in 2 or more pairs | 15 | * Hooks on stem straight; fruit not winged | 4. <i>Caesalpinia</i> |
| 15. Leaves imparipinnate, with a top leaflet | 9. <i>Dialium</i> | | |
| * Leaves paripinnate, with 2 opposite leaflets at the top | 16 | | |
| 16. Leaves without large glands | 17 | | |
| * Leaves with large glands on petiole or rachis | 29 | | |

*Afzelia quanzensis***1. AFZELIA**

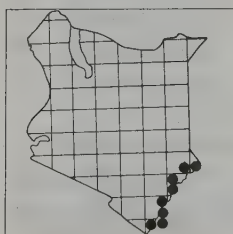
Trees with paripinnate leaves; stipules with basal parts connate into a persistent scale; petiolules twisted; opposite leaflets, with a small gland beneath near the base. Inflorescence racemose; sepals 4, unequal; petal 1, large. Fruit large, woody.

Afzelia quanzensis Welw.

(*A. cuanensis* Welw.)

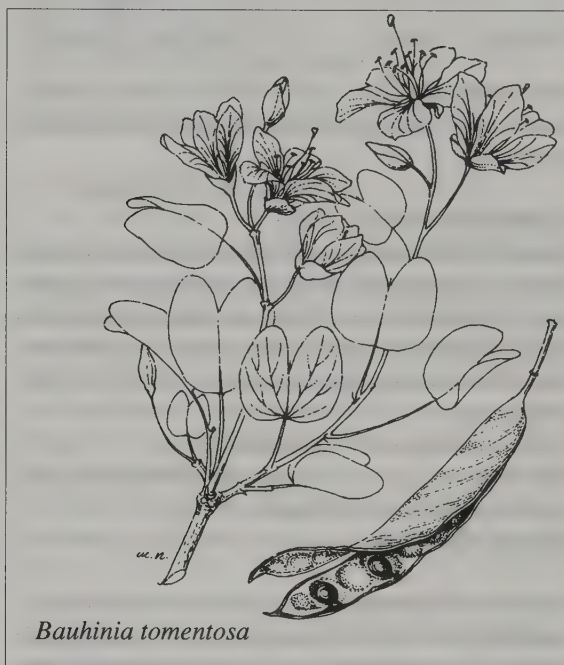
Tree 4-24(35)m; crown spreading; bark flaking, pale brown or grey. Leaves with 4-6 pairs of leaflets; leaflets ovate or elliptic, base cuneate or rounded, apex rounded or obtuse, often emarginate, 4-13 by 3-7cm. Inflorescence erect, 2-7.5cm; sepals 0.9-1.7cm long; petal red or pink inside, green outside, bilobed at apex, 2.5-4.5 by 2.2-3.8cm. Fruit 12-23 by 5-10cm, woody, with black seeds with a red aril at the base.

K7; 1-450m; III-IV, IX

*Afzelia quanzensis*

Woodland, dense bushland, or dry evergreen forest (edges). Common in Arabuko-Sokoke.

Afzelia (STAND), Mahogany Bean, Lucky Bean Tree (TRADE), Mbambakofi (SWA, GIR), Jamagi, Ram-Ed (BON), Ramicha (SAN). Wood shipworm-resistant, durable in the ground; used in furniture-making.

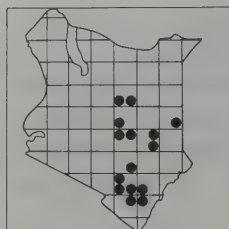
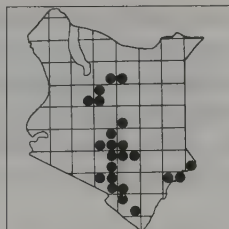
*Bauhinia tomentosa***2. BAUHINIA**

Leaves simple, bilobed, with midrib extending for 2-3mm. Flowers large, solitary or in few-flowered racemes. Calyx spathaceous; petals 5. Fruit oblong to linear, more or less woody.

1. Flowers white; leaves 1-3.5cm long; fruit 2-4cm long **2. *B. taitensis***
- * Flowers yellow; leaves 1-7cm long; fruit 6-13cm long **2**
2. Leaves wider than long, apices rounded **3. *B. tomentosa***
- * Leaves longer than wide, apices more or less pointed **1. *B. mombassae***

1. *Bauhinia mombassae* Vatke **ENDANGERED**

Small shrub, size unknown. Leaves bilobed for one third or half, base cordate, apices obtuse or acute, 3.5-12.5 by 4-10cm, densely pubescent beneath. Flowers yellow, orange near base, one petal crimson near base, 3-5cm long. Fruit 7-12 by 1.4-2cm.

*Bauhinia taitensis**Bauhinia tomentosa*

K7; 1-150m?; *

Riverbanks: Njora, Kombeni, Mwachi and Lwandani Rivers.

2. *Bauhinia taitensis* Taub.

Shrub 0.5-2.5(4)m. Leaves bilobed for half or three-fifths, base rounded or truncate, apices rounded, 1-3.5 by 1.5-5cm, pubescent. Flowers white, solitary, often produced with the young leaves, petals 1.3-2.4 by 0.5-1cm. Fruit brown, apex apiculate, 2-4 by 1-1.3cm, tomentose.

K147; 100-800m; II-VI, VIII-XII

Open or dense (*Acacia-Commiphora*) bushland, may be locally common. Endemic.

Mukira, Viga(BOR).

3. *Bauhinia tomentosa* L.

Shrub or tree 1-7.5m; bark grey-brown. Leaves bilobed to one third or less (rarely to halfway), base (sub)cordate or truncate, apices rounded, 1-7 by 1.5-9cm, glabrous or pubescent (beneath). Flowers yellow with crimson blotch near base of 1-3 petals, these 3-6 by 2-4.6cm. Fruit light brown, 6-13 by 1.3-2cm, puberulous or pubescent.

K1467; 1-2100m; I-II, IV-XII.

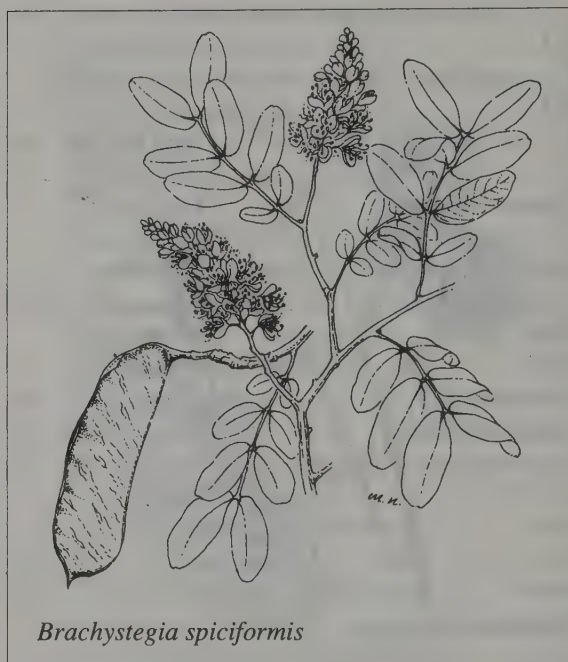
Dry forest edges, riverine forest or bushland, wooded grassland or deciduous bushland.

Musaponi (SWA), Abertaba (t) (BOR), Mulema, Muandia, Mucundia, (KAM), Murema (KIK), Mwangu (MER), Lechoro (SAM), Engomomur (TUR).

Note: *Bauhinia buscalionii* Mattei has been found once on the Wajir-El Wak road as a shrublet of 40cm. In Somalia this occurs as a shrub in dry bushland, and may be up to 1.5m high. It would key out as *B. tomentosa*, but differs in the shorter stipules.

3. BRACHYSTEGLIA

Trees with paripinnate, stipulate leaves. Leaflets sessile, opposite. Inflorescence in terminal racemes.

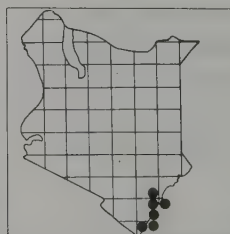
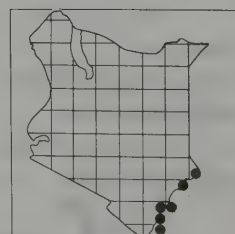
*Brachystegia spiciformis*

Flowers zygomorphic. Stamens 10. Fruit flat, woody, dehiscent elastically, the valves becoming spirally twisted.

Brachystegia spiciformis Benth.

Tree 6-21m; crown rounded or flat (in old trees); bark rough, greybrown. Flush red or pink. Leaves with 2-6 pairs of leaflets; leaflets subcircular or (ob)ovate, base cuneate to cordate, often asymmetrical, apex emarginate or rounded, 2-9 by 1-4cm, glabrous to tomentellous, midrib central or eccentric; leaflets increasing in size towards the top of the rachis. Flowers green with white filaments, small, to 6mm, in inflorescences to 6cm long; tepals 0-2. Fruit yellowish or brown, thinly woody, apex long-apiculate, 6-16.5 by 2-4.5cm.

K7; 1-350m; I-II, IV, XI-XII *

*Brachystegia spiciformis**Caesalpinia bonduc*

Dry forest or woodland, often locally dominant; often as an ecotone between (*Afzelia*) forest and the drier bushland more inland.

Spiciformis (STAND), Mrihi (SWA, DIG, GIR), Mjombo (GIR), Sorsor (SAN). Bark used to make rope. Timber used for canoes.

4. CAESALPINIA

(Climbing) shrubs or trees, usually with spines or prickles. Leaves bipinnate. Inflorescences of dense terminal and/or axillary racemes or panicles. Flowers bisexual or bisexual and male (in *C. bonduc* and *C. volkensii*). Petals 5, stamens 10. Fruit flattened, oblong, asymmetric.

1. Stems and leaves unarmed 2
- * Stems and leaves with prickles 3
2. Tree to 20m; leaflets 5-80 by 2-30mm; petals 3-4mm wide 5. *C. insolita*
- * Shrub to 6m; leaflets 5-20 by 4-9mm; petals 10-20mm wide 6. *C. pulcherrima*
3. Leaflets acuminate, more than 30 by 15mm; (riverine) forest 8. *C. volkensii*
- * Leaflets rounded at apex, less than 20 by 9mm, or seashore plant 4
4. Seashore plant; fruit prickly; leaflets 13-45 by 8-22mm 1. *C. bonduc*
- * Inland plants; fruits not prickly; leaflets 2-20 by 1-9mm 5
5. Leaflets in 3-5 pairs; prickles only at nodes; flowers yellow 4. *C. erianthera*
- * Leaflets in 5 or more pairs; prickles scattered, or if at the nodes, then flowers red and yellow 6
6. Stamens long-exserted; flowers red and yellow 6. *C. pulcherrima*
- * Stamens exserted for less than 15mm 7
7. Flowers mauve or purple; pedicel 1-2.4cm long 7. *C. trothae*
- * Flowers yellow or (pinkish) white; pedicel less than 0.8cm long 8
8. Flowers (pinkish) white; leaflets 6-12mm long; NE Kenya 2. *C. dauensis*
- * Flowers yellow; leaflets 10-20mm long; widespread 3. *C. decapetala*

1. *Caesalpinia bonduc* (L.) Roxb.

Map p.236

Shrub, sometimes scrambling, 1-3(5)m. Stems armed with straight or slightly deflexed prickles to 5mm,

densely set. Stipules leafy, 2-3, unequal, 0.3-2.5 by 0.2-3.6cm. Leaves with prickles, pinnae in 3-9 pairs; leaflets in 6-9 pairs per pinna, ovate or elliptic, apex rounded or emarginate, often mucronate, 1.3-4.5 by 0.8-2.2cm. Flowers yellow, with pink or red markings on upper petal; petals 12-13 by 3-4mm. Fruit densely prickly, elliptic, 4.5-8 by 3.5-4.5cm.

K7; 0-15m; I, VII, IX-XI *

Along seashore or in sanddunes.

Mkomwe, Mkete (SWA), Mburuga (GIR), Musadyeqa (ILW), Sadek (ORM).

2. *Caesalpinia dauensis* Thulin

(*C. sp.* A of FTEA)

VULNERABLE

Shrub, about 2.5m. Stems armed with rather scattered straight or slightly deflexed prickles to 7mm. Leaves with prickles; pinnae in 3-5 pairs; leaflets in 7-11 pairs per pinnae, elliptic, apex rounded and mucronate, 0.6-1.2 by 0.2-0.5mm. Flowers (pinkish) white, petals 9-10 by 4-4.5mm; inflorescence with whitish bracts. Young fruit beaked, unarmed.

K1; 400-600m; V, X *

Collected twice in the Daua R. Valley (NE Kenya) on limestone slopes in *Acacia-Commiphora* woodland.

3. *Caesalpinia decapetala* (Roth) Alston

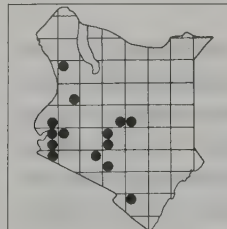
(Climbing) shrub 0.5-10m. Stems armed with scattered straight or deflexed prickles to 8mm. Stipules 4-20 by 2-8mm. Leaves with prickles; pinnae in 4-10 pairs; leaflets in 8-12 pairs per pinna, elliptic or obovate, apex rounded, 1-2 by 0.3-0.8cm. Flowers yellow, petals 10-15 by 8-15mm, the upper somewhat smaller. Fruit (reddish-) brown, beaked, 6-10 by 2-3cm.

K23457; 650-2050m; I-VI, IX-XII

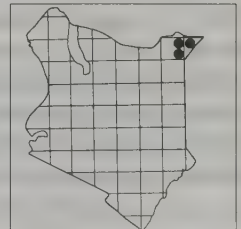
Forest edges, bushland, roadsides. Originally from Asia but gone wild.

Kitandambo (KAM), Mubagi (KIK), Olunani (LUH), Matata/Okwato (LUO).

Roots poisonous. Widely used as a hedge plant.



Caesalpinia decapetala



Caesalpinia erianthera

4. *Caesalpinia erianthera* Chiov.var. *pubescens* Brenan

Map p.237

Shrub to 2m. Stems with recurved prickles at the nodes, 2-5mm. Leaves with minute prickles; 2-6 pairs of pinnae; leaflets 3-5 pairs per pinnae, elliptic or subcircular, 0.2-0.8 by 0.1-0.6cm. Flowers (greenish-) yellow, petals 5-6.5 by 3-6mm. Fruit crimson when young, beaked, 1.7-2.3 by 0.5-0.7cm.

K1; 450-750m; V *

Collected rarely, but reported to be common between Ramu and Mandera; *Acacia-Commiphora* bush- or woodland.

Kodi (BOR, SOM).

5. *Caesalpinia insolita* (Harms) Brenan & Gillett(C. *dalei* Brenan & Gillett, C. *sp. nov.* of KTS)

VULNERABLE

Tree 16-20m, buttressed; bark smooth, grey. Branches unarmed. Leaves with 1-10 pairs of pinna; leaflets in 2-12 pairs per pinnae, elliptic and often asymmetric (rhombic), apex obtuse, 0.5-8 by 0.2-3cm. Flowers yellow, petals 9-11 by 3-4mm. Fruit beaked, 4.5-6 by 1.5-2cm.

K7; 1-300m; IX *

Collected at Mwena River, Mwachi, Kivara and Kambe, in evergreen forest.

6. *Caesalpinia pulcherrima* (L.) Sw.

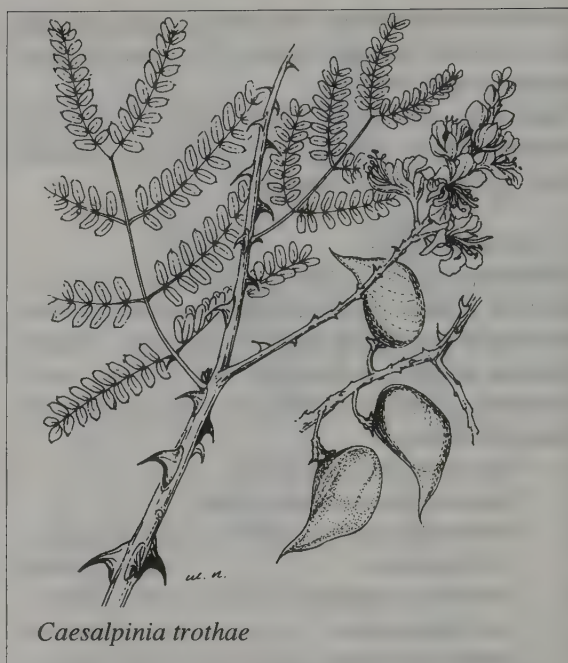
Shrub 1-6m. Stems unarmed or occasionally with spines at the nodes, rarely sparsely scattered. Leaves with 3-10 pairs of pinnae; leaflets in 5-11 pairs per pinnae, elliptic, apex rounded, 0.5-2 by 0.4-0.9cm. Flowers red and yellow, petals 15-25 by 10-20mm; filaments 5-6.5cm long. Fruit black-brown or purplish, asymmetric, 7-12 by 1.8-2.2cm.

K47; 1-2000m; II, VIII *

Naturalized, most often found as a relic from cultivation; originally from America.

7. *Caesalpinia trothae* Harms(Incl. C. *erlangeri* Harms)

Shrub, 0.3-4.5m, occasionally scrambling. Stems with scattered, deflexed prickles to 9mm. Leaves with prickles, with pinnae in 3-17 pairs; leaflets in 4-33 pairs per pinnae, (narrowly) elliptic, 4-10 by 1-4mm. Flowers pinkish-purple or mauve, one petal with yellow centre; petals 9-20 by 5-15mm. Fruit (reddish-) brown, beaked, 1.5-5 by 1.5-2.2cm.



K147; 100-750m; I-II, IV-VI, VIII, X-XI

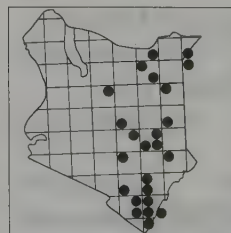
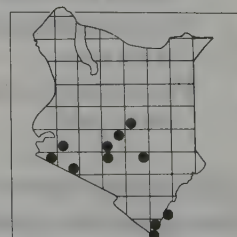
(*Acacia-Commiphora*) bushland, often on seasonally flooded spots.

Gorgor (BOR), Hamares (ORM), Gora, Furgurgur (SOM). Good camel browse. Fruits poisonous.

NOTE: As there are many intermediates between the subspecies proposed by Brenan in FTEA, I have treated all specimens as a single species, without subdivisions.

8. *Caesalpinia volkensii* Harms

Climber or liana, 1.8-4 (++)m. Stems with deflexed prickles to 5mm. Leaves with prickles; pinnae in 3-6 pairs; leaflets in 3-6 pairs, ovate, apex (obtusely) acuminate, 3-8 by 1.5-4cm. Flowers yellow; petals about 16 by 3.5-4.5mm. Fruit densely prickly, beaked, 7-13 by 3.5-6.5cm.

*Caesalpinia trothae**Caesalpinia volkensii*

K4567; 1-2100m; III-V, IX, XI *

Evergreen or riverine forest.

Mburuga (DIG), Mubuthi (KIK), Olnkulankulei (MAA), Omukbare (WAT). Used in malaria medicine by the Kikuyu.

5. CASSIA (see also SENNA)

Leaves paripinnate, often with conspicuous glands on petiole or rachis. Inflorescence racemose. Flowers normally bisexual. Petals 5, the upper ones often slightly smaller. Stamens usually 10, with pores or slits. Fruit very variable.

1. Leaflets puberulous or pubescent; inflorescence to 9cm long (may flower when leafless) **1. *C. abbreviata***

- * Leaflets glabrous (except at base); inflorescence more than 15cm long **2. *C. afrofistula***

1. *Cassia abbreviata* Oliv.

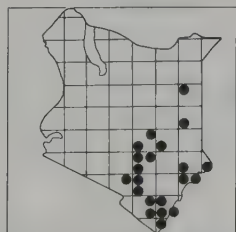
Shrub or more often tree, 3-10m; crown rounded; bark cracked, brown(-grey). Leaves with 5-12 pairs of leaflets, ovate-elliptic, apex rounded to subacute, 2-7 by 1-3cm, usually puberulous or pubescent. Often flowering when leafless. Flowers yellow, petals 1.5-3.5 by 0.7-1.8cm. Fruits greygreen or black, cylindrical to slightly flattened, 30-90 by 1.5-2.5cm, glabrous or velvety.

K147; 1-1000m; II-V, VIII-XI

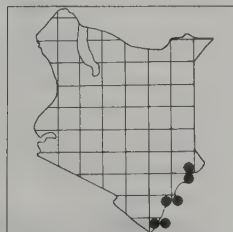
(*Acacia-Commiphora*) bushland, less often in woodland or wooded grassland.

Mbaraka (SWA), Kang (BON), Rabiya (BOR), Muhumba mkulu (DIG, GIR), Malandesi (KAM), Msoka (PKM), Domader/Rabuya (SOM), Domaderi (SOM), Msoko, Mukangu (TAI). Bark used for tanning by the Somali; plant used in stomach medicine by the Digo.

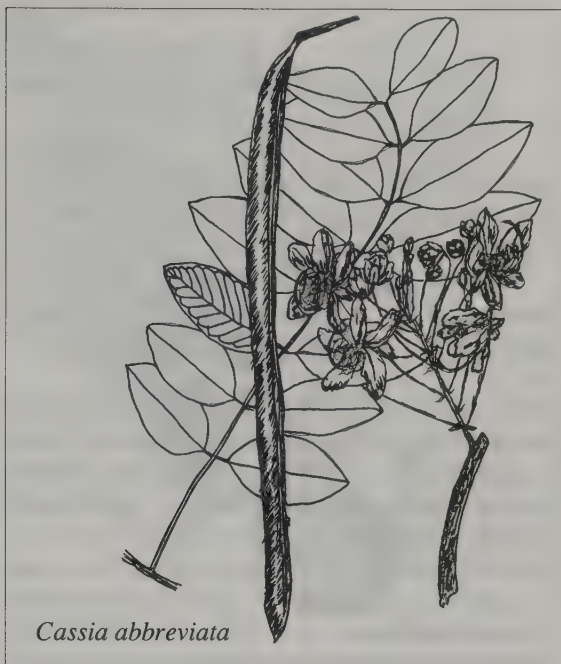
Note. Brenan in FTEA distinguishes, in Kenya, ssp. *beareana* (Holmes) Brenan with spreading pubescence on the axils of the inflorescence, and petals 18-



Cassia abbreviata



Cassia afrofistula



Cassia abbreviata

30 by 9-15mm; and ssp. *kaessneri* (Bak.f.) Brenan with appressed pubescence on the axils, and petals 15-20 by 7-10mm. Specimens occur in Kenya with these characters mixed (e.g. Mungai et al. 374/83, Greenway 9229, Heady 1248). But mostly the subspecies seem to be geographically separate, with ssp. *beareana* occurring at lower altitudes in Coast Province only.

2. *Cassia afrofistula* Brenan

Shrub or tree 1-7m. Leaves with 4-9 pairs of leaflets; leaflets ovate, apex obtuse or acute, 2-10 by 1.5-5cm, glabrous. Flowers yellow in large (to 40cm) terminal panicle; petals 15-30 by 10-20mm. Fruit blackish-brown, (sub-)cylindrical, brittle, 20-60 by 1-1.5cm.

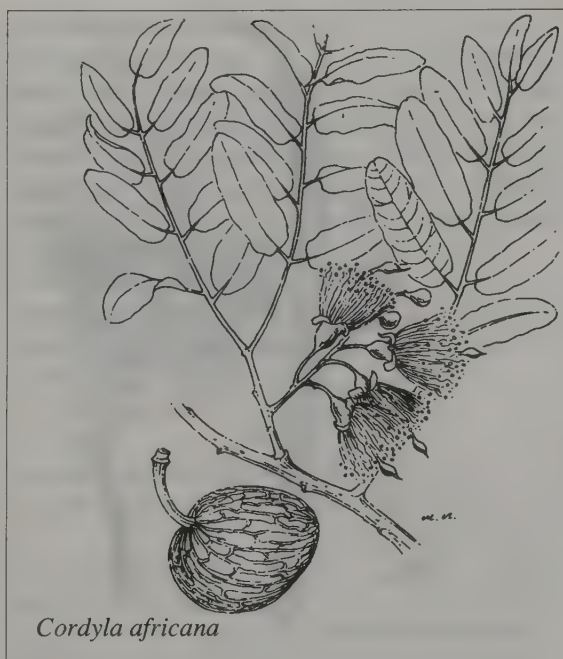
K7; 1-250m; II-III, V, VII-IX *

Coastal evergreen bushland and forest edges.

African Laburnum (STAND), Mbaraka mtoto (SWA), Kionge (BON), Wasamara (SAN).

6. CORDYLA

Leaves alternate, imparipinnate; stipules caducous; leaflets alternate, with numerous pellucid dots or streaks. Flowers bisexual or male, in mostly axillary racemes. Calyx splitting into 3-5 lobes on opening. Petals 0. Stamens many. Fruits stipitate.



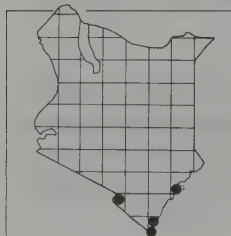
***Cordyla africana* Lour.**

Tree 6-40m; crown rounded or spreading, outer branches pendulous; bark brown, flaky. Leaves with 11-28 leaflets, leaflets elliptic or ovate, base and apex rounded, 2-5 by 1.2-2.4cm, minutely puberulous beneath. Flowers green, with orange-yellow stamens, in racemes 1.5-11cm long, usually borne below this year's leaves. Fruit orange-yellow, ellipsoid or globose, more or less oblique, 4.5-8 by 3-6cm.

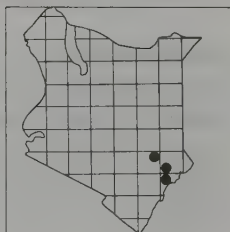
K7; 1-900m; IV *

Evergreen (swamp) forest or coastal evergreen bushland.

Cordyla (STAND), Munbwa (SWA), Muyungwi/mnyungwi Nyungwi (DIG), Mroma (TAI). Wood used for building.



Cordyla africana



Cynometra lukei

7. CYNOMETRA

Leaves pinnate with opposite leaflets. Inflorescence panicle. Sepals 4, petals 5, stamens (usually) 10. Fruit woody, stipitate, usually flat but in *C. lukei* ellipsoid.

- | | |
|---|---------------------------|
| 1. ~ Leaves with 4 leaflets | 2 |
| * Leaves with (4)6-8 leaflets | 3 |
| 2. Upland species | 4. <i>C. sp. 1</i> |
| * Coastal lowland species | 2. <i>C. suaheliensis</i> |
| 3. Leaflet apex rounded or obtuse; fruit flat | 3. <i>C. webberi</i> |
| * Leaflet apex emarginate; fruit ellipsoid | 1. <i>C. lukei</i> |

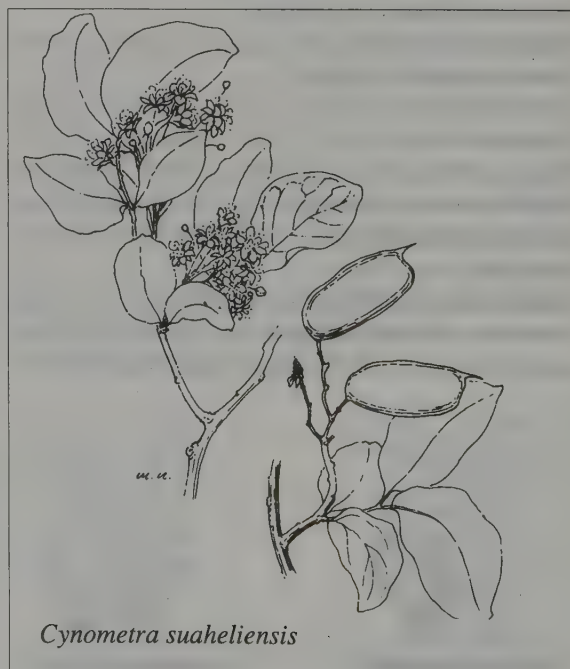
1. *Cynometra lukei* Beentje VULNERABLE

Tree 10-15 m; crown spreading; trunk often fluted; bark smooth, greyish. Leaves with 4-6 leaflets; leaflets obliquely elliptic, apex obtuse and emarginate, 0.6-5.5 by 0.5-3.4 cm, glabrous. Flowers white; petals 3.8-4.5 mm long. Fruit ellipsoid-obovoid, tuberculate, 2.2-7 by 1.4-1.7 cm.

K7; 1-50 m; VII-IX*

Riverine forest.

Mupakata (ILW), Mpakata (PKM).



2. *Cynometra suaheliensis* (Taub.) Bak.f.(incl. *C. greenwayi* Brenan)

Tree 7-12m, evergreen; occasionally buttressed near base; bark pale or reddish brown, peeling and smooth. Leaves with 4 leaflets; leaflets asymmetrically obovate or elliptic, apex obtuse or rounded, 2.5-8 by 1.2-4.4cm. Flowers white; petals 3.5-5.5mm long. Fruit beaked at apex, 4-6 by 2-3cm.

K7; 1-350m; I, XI-XII *

Evergreen dry forest, riverine forest, coastal evergreen bushland.

Mfunda (SWA, DUR). The wood is hard and dense.

Note: The differences with *C. greenwayi* as enumerated by Brenan in KB 17: 211 (1963) do not hold, now that more material is available (e.g. Gillett & Robertson 24011). I therefore consider the type and single specimen, Greenway 10440, to be this species.

3. *Cynometra webberi* Bak.f.

(Shrubby) tree 4.5-12m, evergreen; occasionally buttressed; bark smooth, light grey. Leaves with (4-)6-8 leaflets; leaflets slightly asymmetric, elliptic or obovate, apex rounded or obtuse, 1-3 by 0.5-1.8cm. Flowers white; petals 3.5-4.5mm long. Fruit slightly beaked, 4-6 by 2.6-3.3cm.

K7; 1-300m; IX-XII *

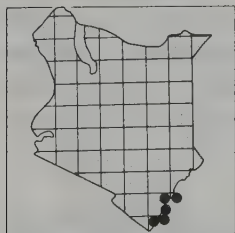
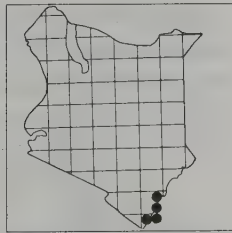
Dry evergreen forest, *Brachystegia* woodland, riverine forest.

Mfunda (SWA), Mudodoma (GIR), Sakucha (SAN).

The wood is hard and dense.

4. *Cynometra* sp. 1

In the Taita Hills forests, a tree occurs which is, in places, the dominant canopy tree (to 40m high). It has not yet been found with stipules, flowers or fruits. The size of the leaves (leaflets 4, up to 13 by 5.5cm) makes it likely that this is the same species as either *C. longipedicellata* (stipules foliaceous), or sp. 'A' of FTEA (stipules linear), or *C. suaheliensis* (stipules ?

*Cynometra suaheliensis**Cynometra webberi*

absent).

K7; 1650-1850m; -

Moist upland forest, Taita Hills only.

8. DELONIX

Trees with bipinnate leaves; leaflets opposite. Inflorescence of short axillary corymbs, near top of branchlets. Flowers large, with 5 clawed petals; stamens 10. Fruits flattened, linear-oblong.

1. Leaflets 10-35 by 4-10mm

1. *D. baccal*

* Leaflets 4-17 by 1-3(4)mm

2. *D. elata***1. *Delonix baccal* (Chiov.) Bak.f.**

Map p. 242

Tree 6-18m with umbrella-shaped crown; bark smooth and grey, peeling in papery strips. Leaves with 2-5 pairs of pinnae; leaflets in 6-15 pairs per pinna, elliptic, 1-3.5 by 0.4-1cm, minutely puberulous. Flowers mauve-yellow and white; petals 2.8-5.5 by 1.5-2.2cm, the uppermost largest. Fruits 11-24 by 2.2-3.5cm.

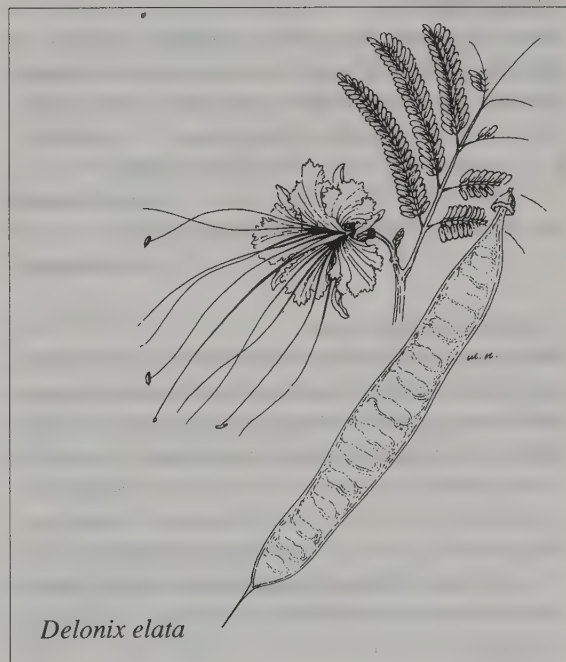
K1; 450-850m; VII, X *

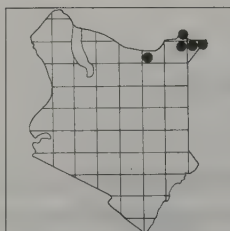
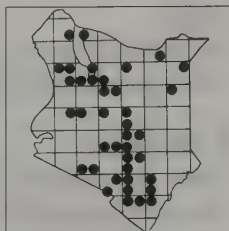
Rocky *Acacia-Commiphora* bushland or in riverine woodland on limestone.

Balanga (BOR), Bakal (SOM).

2. *Delonix elata* (L.) Gamble

Tree, 2.5-15m, with spreading crown; bark yellow-

*Delonix elata*

*Delonix baccal**Delonix elata*

brown, smooth, sometimes flaking, occasionally described as shiny. Leaves with 2-12 pairs of pinnae; leaflets in 11-25 pairs, oblong, 0.4-1.7 by 0.1-0.3(0.4)cm, puberulous. Flowers white with the uppermost petal yellow, fading to orange; petals 1.6-3.8 by 1.8-4.2cm, with irregular margins. Fruits redbrown or purplebrown, base cuneate, apex acute to beaked, 10-27 by 2-3.7cm.

K123456; 100-1200m; I-XII

(*Acacia-Commiphora*) bushland on rocky soil or lava; occasionally riverine or along luggas.

Sukella (BOR, GAB), Sukele (ILW, ORM), Muangi (KAM), Ol-Tangoringoroi, Ol-Derkesi (MAA), Ririon (PKT), Bubunto (REN), Laichimi, Lawai (SAM), Lebbi (SOM), Ekurinchana (TUR). Wood used for utensils by the Turkana. Easily grown from poles. The leaves are said to close at night.

9. DIALIUM

Trees. Leaves imparipinnate, leaflets opposite or alternate. Inflorescence of lateral and terminal many-flowered panicles. Flowers irregular; petals 0; stamens 2. Fruit ellipsoid or subglobose, 1-2 seeded.

1. Leaflets (9)11-15, (5)7.5-18mm long

1. *D. holtzii*

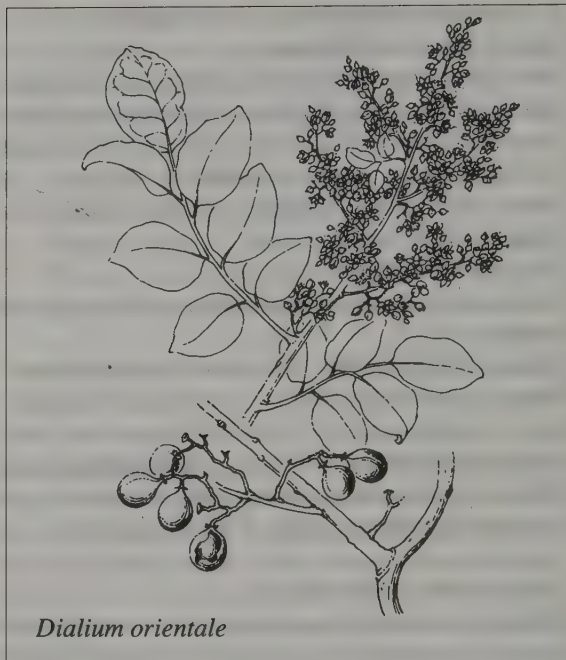
* Leaflets (5)7-9, 3.5-5 (7)mm long

2. *D. orientale*

1. *Dialium holtzii* Harms

Tree 12-25m, slightly buttressed at base; bark smooth, grey or grey-brown. Leaves with 9-15 leaflets; leaflets ovate (lowermost) or elliptic, base rounded or somewhat cuneate, apex obtusely acuminate, 3-7 by 1.5-2.8cm, glabrous or nearly so. Flowers white or yellow, in panicles up to 30 by 15cm; flowers to 2.5mm long. Fruits brown, 13-18 by 10-13mm, puberulous.

K7; collected at Buda, Gongoni and Pangani, alt. 1-100m, in moist forest on limestone. Also ? at Kivara, at 300m.

*Dialium orientale*

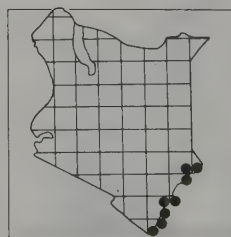
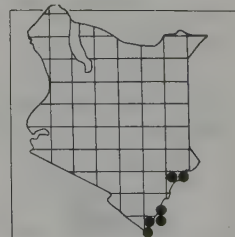
2. *Dialium orientale* Bak.f.

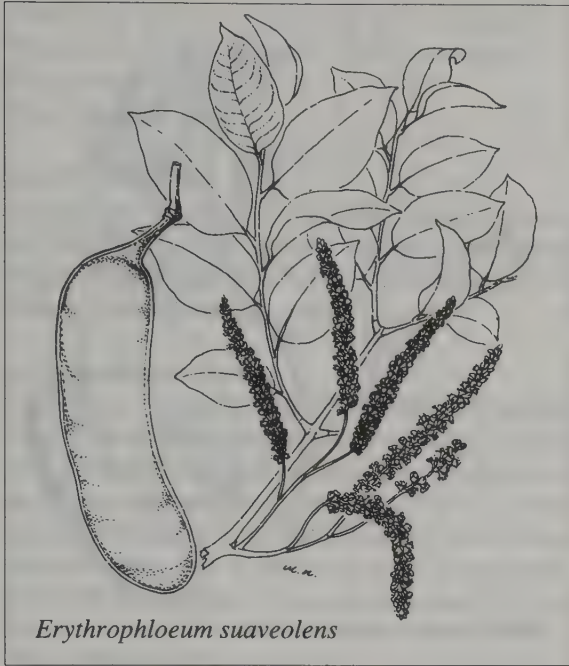
Tree or multistemmed shrub 3-18m; crown flattish, spreading and drooping; bark smooth, pale grey. Leaves with 5-9 leaflets; leaflets ovate (lowermost) or elliptic, base cuneate, rounded, or subcordate, apex obtuse or rounded (acuminate), 1.5-5 by 1-3.2cm, sparsely pubescent (esp. midrib) to subglabrous. Flowers (greenish-) cream or yellow, in panicles up to 30 by 20cm; flowers to 2.5mm long. Fruits reddish, 13-18 by 10-13mm, puberulous.

K7; 1-100m; I-II, VIII-XI, XI-XII *. Endemic to Kenya, NE Tanzania and S Somalia.

Evergreen dry forest, *Brachystegia* woodland, evergreen bushland, clump grassland.

Mpepeti (SWA), Sheshubla (BON), Mtumbwi (GIR), Shoshobli, Shusholwe (SAN), Frim (SOM). Fruit edible. Wood fine-textured, used for dhow ribs.

*Dialium orientale**Erythrophloeum suaveolens*



10. ERYTHROPHLEUM

Trees with bipinnate leaves; leaflets alternate. Inflorescences of pedunculate, spike-like racemes, usually aggregated in panicles. Petals 5, equal, pubescent. Stamens 10. Fruits stipitate, woody, flattened.

Erythrophloeum suaveolens (Guill. & Perr.) Brenan
(*E. guineense* G. Don)

Tree 12-30m; bark rough, brown, fissured. Leaves with pinnae in 2-4 pairs; leaflets 7-14 per pinnae, ovate or elliptic, usually asymmetric, apex obtusely acuminate, 3-10 by 1.5-5.3cm, glabrous or nearly so. Flowers cream or greenish-yellow, 2-3mm long, in 3-8cm long spikes. Fruits often slightly curved, 8-17 by 3-5cm.

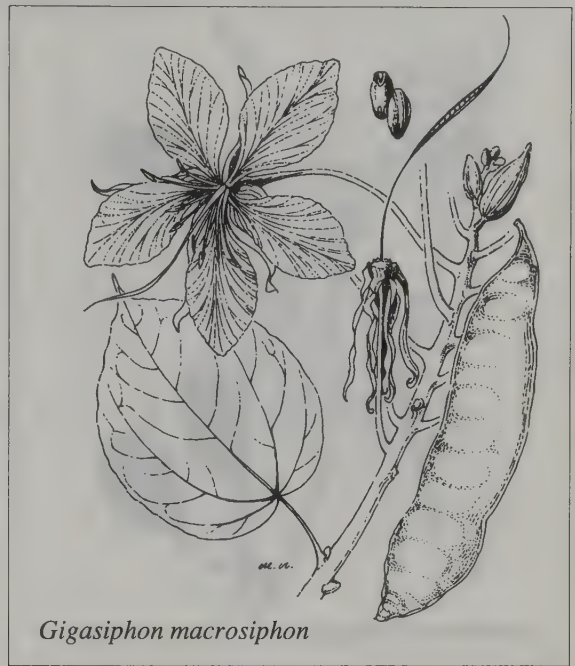
K7; 1-400m; I-II, XII *

Evergreen wet forest, swamp forest, (*Hyphaene*) wooded grassland.

Missanda, ordeal tree (common), Mbaraka mkuu/Mkelekele (SWA), Kina (BON). Bark and seed poisonous. The bark contains tannin, and produces a dye. The timber is resistant to termites and borers, and is very durable.

11. GIGASIPHON

Leaves simple. Flowers large, in short terminal ra-



ces. Petals 5, stamens 10. Fruit oblong, woody.

Gigasiphon macrosiphon (Harms) Brenan

(*G. humblotianum* sensu KTS) **ENDANGERED**
Tree 12-24m; crown rounded; bark smooth, grey. Leaves broadly ovate, base (sub-)cordate, apex acuminate, 9-20 by 7-16cm, 5-veined from base, subglabrous. Flowers white with one (partly) yellow petal, petals 9-13 by 4-6cm. Fruits greyblack, flattened, 20-30 by 6-7.5cm.

K7; 100-250m; I, V-VIII *

Moist evergreen forest. Only known from Mrima, Gongoni, Muhaka and Marenje forests (and coastal Tanzania).

12. HYMENAEA

Leaves with one pair of leaflets; leaflets with gland-dots. Inflorescence paniculate. Sepals 4, 2 outer and 1 inner; petals 5, either 3 large and 2 tiny, or occasionally equal. Stamens 10. Fruits thick, woody, warted, 1-3 seeded.

Hymenaea verrucosa Gaertn.

[*Trachylobium verrucosum* (Gaertn.) Oliv.]

Tree 6-30m; bark grey or purplebrown, smooth or striated. Leaves with 2 leaflets; leaflets asymmetric,



ovate or elliptic, base unequal and cuneate, apex short and obtusely acuminate, 3.5-12 by 2-6cm, (sub-)glabrous. Flowers white or pink, to 2cm long, in panicles up to 35 by 25cm. Fruits (ob-)ovoid or ellipsoid, warted and resinous, 2.5-5 by 1.5-3cm.

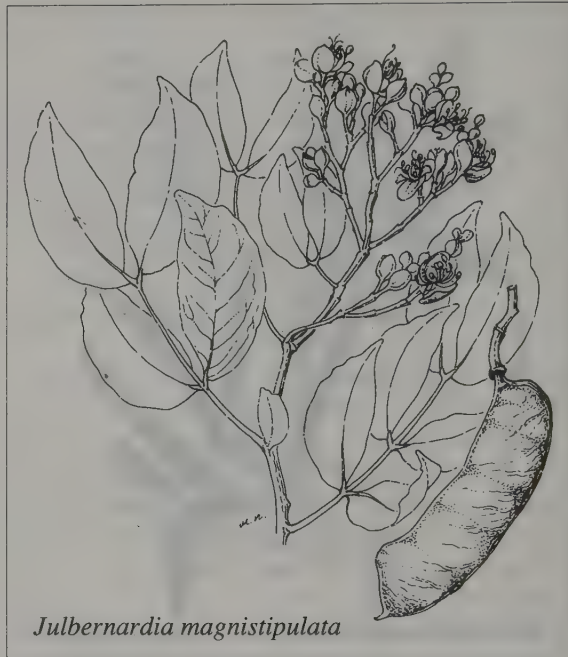
K7; 1-400m; III-IV *

Dry evergreen forest (in Tanzania also in coastal evergreen bushland).

Mtandarusi, Gum Copal Tree (STAND), Mnyanza (SWA), Msandarusi (GIR, DIG), Musange (GIR), Sibile (SAN). Used for timber; produces gum copal, used in high quality varnishes.

13. JULBERNARDIA

Leaves paripinnate; petiolules usually twisted; leaflets opposite, asymmetric at base. Flowers in large terminal panicles. Petals 5, stamens 10. Fruits flattened,



elastically dehiscent.

Julbernardia magnistipulata (Harms) Troupin.

Tree 6-25m (once in flower as a bush, 2.5m), with buttressed base (always ?); bark grey, smooth. Leaves with large (-5 by 3cm) stipules, and 2-3 pairs of leaflets; leaflets asymmetric, elliptic or slightly (ob)ovate, 6-14 by 2.3-7cm, glabrous. Flowers white or cream, one petal to 7 by 6mm, the others 2-5 by 1-1.5mm; panicles to 20cm long. Fruits oblong, 5.5-14 by 2.5-3.5cm, glabrous when mature.

K7; 1-400m; VIII-X *

Dry or moist evergreen forest, *Brachystegia* woodland, creek edges.

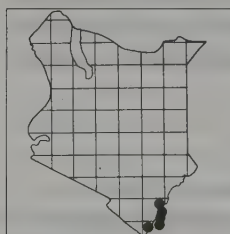
Msahe (GIR), Mkue/Mkwe/Mukuwa (SWA, DIG). Bark fibre used for rope.

14. MEZONEURON

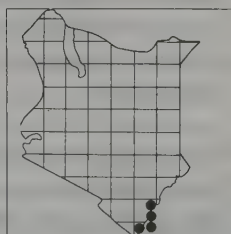
Leaves bipinnate; leaflets opposite. Inflorescence racemose; sepals 5; petals 5, subequal. Fruit flat, winged along the upper side.

Mezoneuron angolense Oliv. (no plate)

Liana to 12m, with hooked spines on stem and leaf-rachis. Leaves with 4-10 pairs of pinnae; leaflets 4-9 pairs per pinna, 10-20 by 6-15mm. Inflorescence 5-



Hymenaea verrucosa



Julbernardia magnistipulata

40cm long, simple or branched; petals yellow, 6.5-9mm long. Fruit 8.5-14.5 by 2.8-4.7cm, leathery.

K7; 1-50m; -*

Witu forest.

15. OXYSTIGMA

Leaves (im-)paripinnate, leaflets alternate, with pellucid gland-dots. Inflorescence of spike-like racemes arranged in a panicle; petals absent; stamens 10. Fruits flattened, asymmetric, 1-seeded.

Oxystigma msoo Harms

VULNERABLE, ?ENDANGERED

Tree 25-50m; bark pale grey, slightly flaky. Leaves with 5-7 leaflets; leaflets ovate or elliptic, base rounded or cuneate, apex (slightly) acuminate, 4-14 by 2-7cm, glabrous. Flowers (yellowish) white, to 2.5mm long; spike-like branches of inflorescence 7-17.5cm long. Fruits obovate-elliptic, somewhat winged, 4-6 by 2.5cm.

K7; 1-100m; II, VII *

Evergreen forest or riverine forest; recently only found at Pangani and in the Tana delta.

Muchuwa (PKM). Wood soft, liable to borer attack, but used to make canoes.



Paramacrolobium coeruleum

16. PARAMACROLOBIUM

Leaves paripinnate, with persistent 2-topped stipules; petiolules twisted; leaflets opposite. Flowers in compact terminal panicles; petals 5, stamens 9. Fruit woody.

Paramacrolobium coeruleum (Taub.) Léonard

Tree 4-18; crown spreading, with drooping branches; bark greybrown, fairly smooth, with fine striations. Leaves with 2-5 pairs of somewhat falcate leaflets; narrowly ovate or elliptic, base rounded or cuneate, apex gradually acuminate, 5-10 by 2-4.5cm, glabrous or nearly so. Flowers blue or mauve, with one large (3-3.5 by 1-2.3cm) obovate petal, 2 much smaller ones, and 2 minute ones. Fruit 8.5-18 by 2.5-5cm.

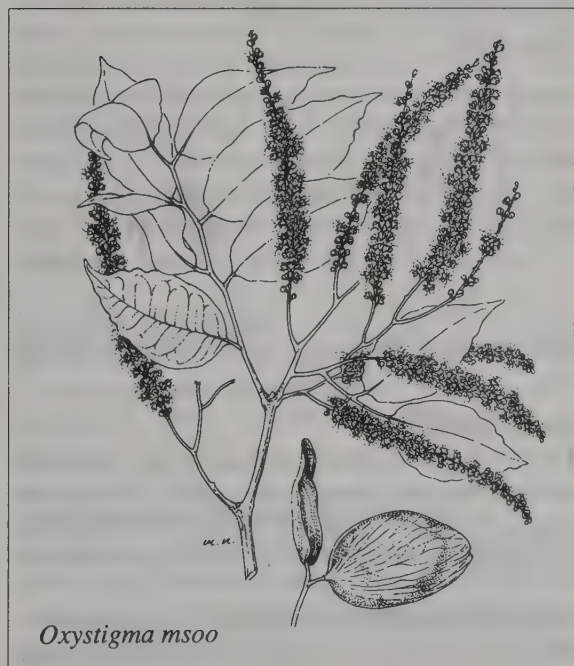
K7, 1-450m; I-II, V *

Moist evergreen forest or *Brachystegia* forest/woodland, often forming clumps: Shimba Hills and South Coast.

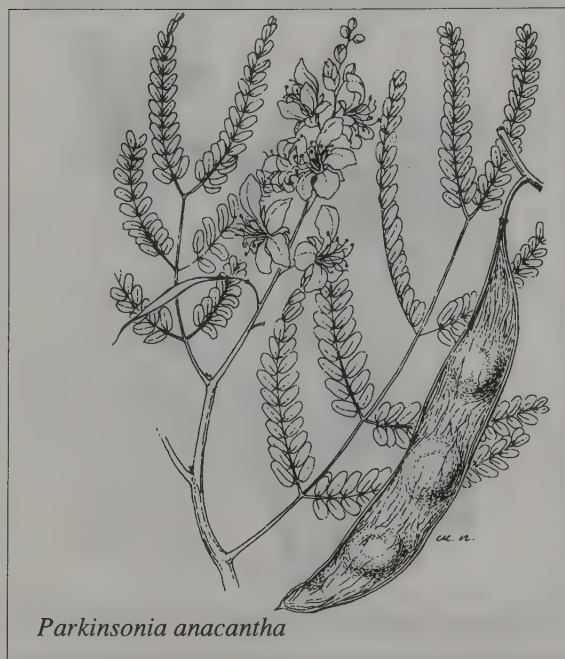
Mkwe (SWA), Mkua, Mrihi (DIG). The bark produces a rough fibre.

17. PARKINSONIA

Shubs or trees. Leaves bipinnate; leaflets opposite or (*P. aculeata*) partly alternate, sometimes much reduced. Inflorescence of axillary racemes. Petals 5, the



Oxystigma msoo



uppermost with a pronounced claw. Stamens 10. Fruit flat or swollen.

- | | |
|--|-------------------------------|
| 1. Branches with spines | 2 |
| * Branches unarmed | 2. <i>P. anacantha</i> |
| 2. Pinnae in 1-3 pairs, with flattened rachis to 40cm long | 1. <i>P. aculeata</i> |
| * Pinnae in 2-8 pairs, with rounded rachis to 12cm long | 3. <i>P. scioana</i> |

1. *Parkinsonia aculeata* L.

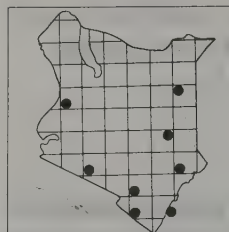
Shrub or small tree 0.5-7m; bark smooth, green. Branches with single or paired spines at the nodes; spines straight, 3-16mm. Leaves with 1-3 pairs of pinnae; leaflets in many pairs per pinna, on a flattened rachis. Leaflets to 5 by 1.5mm. Flowers yellow, in long racemes. Fruits 6-11 by 0.5-0.7cm, constricted between the seeds.

K1267; 1-1800m; IV, VI-X *

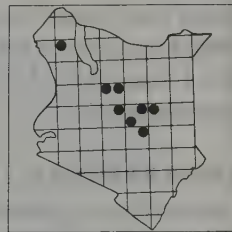
Native to America, cultivated and gone wild in places; often in riverine or swampy situations in dry areas. Muk-bee (ORM).

2. *Parkinsonia anacantha* Brenan

Shrub or many-stemmed tree 1.5-5m; bark reddish-brown. Leaves with 2-6 pairs of pinnae; leaflets in 4-17 pairs per pinna, elliptic, apex rounded, 3-17 by 2-



Parkinsonia aculeata



Parkinsonia anacantha

7mm, puberulous. Flowers golden yellow, petals 10-12 by 4-7mm. Fruits flattened, narrowly elliptic, apex acute, 6.5-13 by 1-2cm.

K1247; 400-900m; IV, X-XII *. Endemic to Kenya. Semi-desert scrub or dry bushland.

The wood is used for small implements.

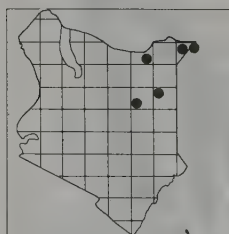
3. *Parkinsonia scioana* (Chiov.) Brenan (*Peltophoropsis scioana* Chiov.)

Shrub or small tree, 1.5-5m; spreading, branching near base. Branches with paired spines at the nodes, 2-5mm long, straight or hooked. Leaves with 2-8 pairs of pinnae; leaflets in 3-6 per pinna, elliptic, apex rounded, 2-9 by 1.2-5mm, puberulous. Flowers yellow, petals 6-8 by 1.5-4.5mm, the upper one largest. Fruits yellowish or red-brown, flattened, narrowly elliptic, apex acute, 4.5-9.5 by 1-2.5cm.

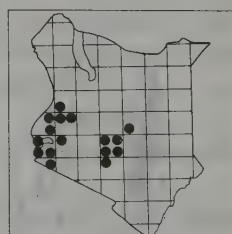
K1; 200-750m; - *

Acacia-Commiphora bushland.

Kodi (BOR).



Parkinsonia scioana



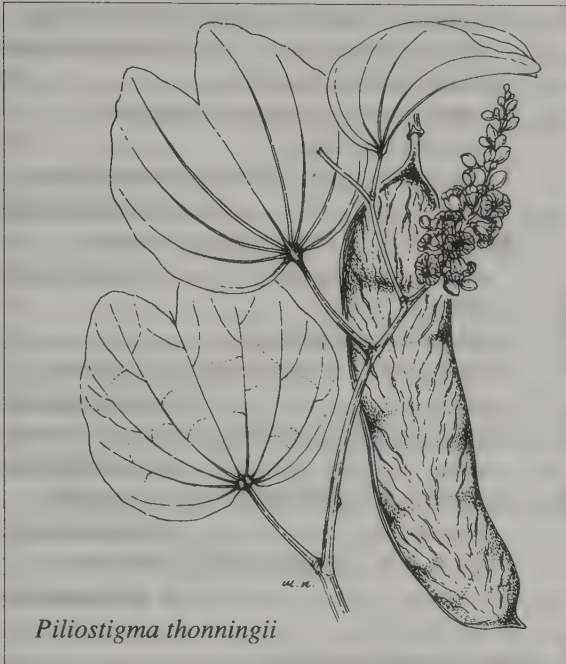
Piliostigma thonningii

18. PILIOSTIGMA

Leaves simple, bilobed. Inflorescences alternately leaf-opposed and axillary, panicate. Flowers unisexual, dioecious. Petals 5; stamens 10, reduced to staminodes in female flowers. Fruits linear or oblong.

Piliostigma thonningii (Schumach.) Milne-Redh.

Shrub or tree 2-7.5m; bark grey or dark brown, rough.



Leaves bilobed for 12-33%, 8-17 by 9-19cm, (densely) pubescent beneath. Flowers white or pink, petals 14-26mm long. Fruits woody, dark brown or blackish, 13-26 by 3-6cm.

K34567; 1-2150m; I-II, IV-VII, XII

(*Combretum*) wooded grassland or scattered tree grassland, often common or dominant.

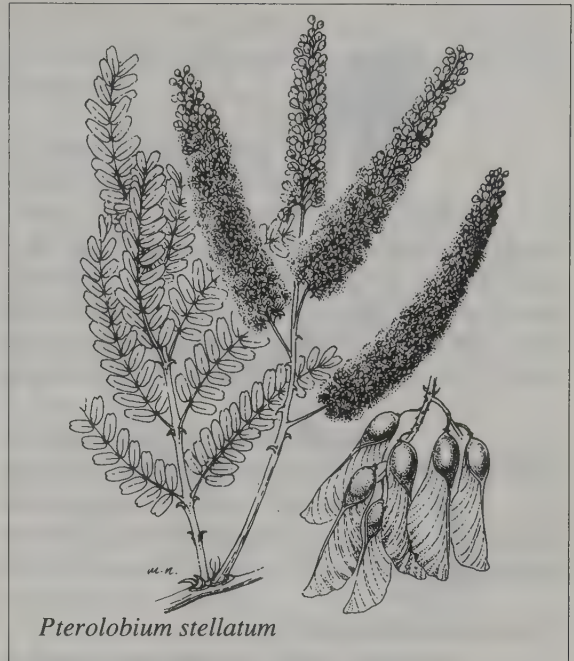
Camel's Foot (STAND), Mchekeche (SWA, DIG), Mukolokolo (KAM), Otangalo (LUO), Kumuyenjay-enja (LUH), Ol-Sagararami, Ol-Bugoi (MAA), Kipsakiat (NAN), Sadiandet (SEB). Wood used to make bows by the Maasai; also used for small implements; the bark contains tannin and yields a red dye and cough medicine; the pods and seeds yield a blue dye.

19. PTEROLOBIUM

Climbing shrubs with prickles on stem and leaves. Leaves bipinnate; leaflets opposite. Petals 5, equal; stamens 10. Fruits 1-seeded, with a large wing on one side.

Pterolobium stellatum (Forssk.) Brenan

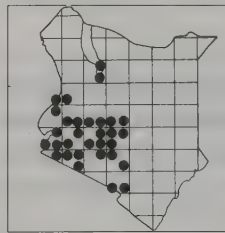
Scrambler or climbing shrub 2-15m. Branches with 2 reflexed prickles at the nodes. Leaves with the rachis armed with pairs or threes of prickles; pinnae in 5-13 pairs; leaflets in 7-15 pairs, 4-12 by 2-5mm, glabrous



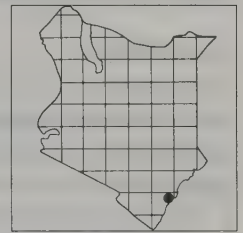
or pubescent. Flowers creamy-yellow, to 3mm long, in spikes 5-13cm long; spikes arranged in panicles. Fruits (purplish-)red, with a wing 2.5-4.5 by 1-2cm. K123456; 1000-2250m; I-XII

Riverine thickets/bush/woodland, dry or moist forest (edges) bushland, tree grassland.

Kipkoskosit' (KIP, NDO), Osiri madongo (LUO), Engisar ngaduini (MAA), Korkos (NAN), Kisibiri (TUG). A root decoction is used by the Maasai against stomachache.



Pterolobium stellatum



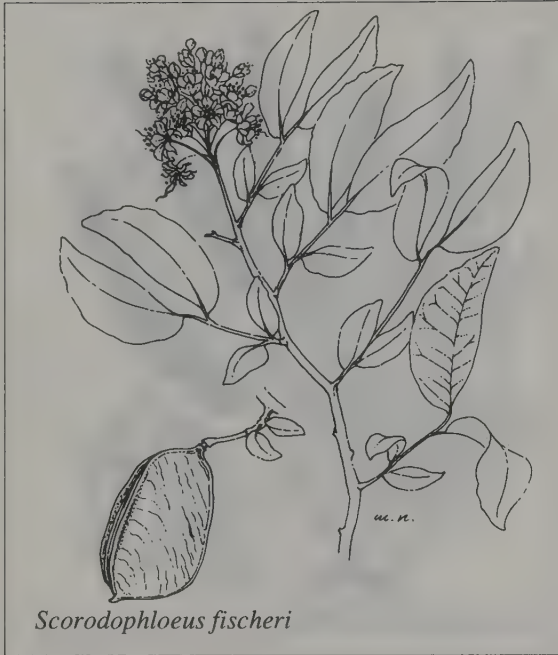
Scorodophloeus fischeri

20. SCORODOPHLOEUS

Leaves pinnate. Inflorescence racemose. Sepals 4; petals 5, subequal; stamens 10. Fruits flattened, woody.

Scorodophloeus fischeri (Taub.) J.Léonard

Tree 5-30m with small buttresses; bark smooth, grey.



Leaves with 3-5 alternate leaflets; leaflets largest towards the top of the leaf, the largest asymmetrically elliptic, base unequal, apex obtuse, to 11 by 5.5cm, the lowermost may be as small as 1 by 0.7cm. Flowers white, to 10mm long, with reflexed petals. Fruits obliquely obovate, apex apiculate, 5.5-7 by 3.3-4.5cm. K7; 1-350m; - (in Tanzania XI-XII)

Dry evergreen forest, wooded grassland; once found in sand dunes.

Mugodoma (SWA), Kifungazanzu (DUR). Used for rough construction work.

21. SENNA

Very similar to *Cassia*, from which it is distinct by the 3 adaxial stamens which are short and straight, and the pedicels which have no bracteoles. The seeds often have an areole on each face.

S. singueana often flowers when leafless.

- | | |
|--|---------------------------|
| 1. Leaf rachis without glands | 2 |
| * Leaf rachis with projecting glands between (some) leaflets | 4 |
| 2. Stipules 8-12mm wide; fruit 8-12cm long | |
| | 4. <i>S. didymobotrya</i> |
| * Stipules < 3mm wide; fruit 3.5-7.5cm long | 3 |
| 3. Stipules 3-5mm long; petals 7-17mm long; fruit 16-26mm wide | |
| | 1. <i>S. alexandrina</i> |

- | | |
|---|------------------------------|
| * Stipules 5-11mm long; petals 14-28mm long; fruit 10-18mm wide | 5. <i>S. longiracemosa</i> |
| 4. Leaflets acuminate at apex | 5 |
| * Leaflets rounded to obtuse, sometimes mucronate, at apex | 6 |
| 5. Leaflets in 3-4 pairs, glabrous; stipules linear | |
| | 8. <i>S. septemtrionalis</i> |
| * Leaflets in 4-10 pairs, thinly pubescent; stipules very broad | 7. <i>S. petersiana</i> |
| 6. Leaflets in 3 pairs | 7 |
| * Leaflets in 4 or more pairs | 8 |
| 7. Flower pedicel 3-5mm long; fruit 10-15mm wide | 3. <i>S. bicausularis</i> |
| * Flower pedicel (5) 15-50mm long; fruit 4-6mm wide | 6. <i>S. obtusifolia</i> |
| 8. Leaflets in 4-6 pairs; fruit 1-2cm wide (NE Kenya) | 2. <i>S. baccarinii</i> |
| * Leaflets in 6-10 pairs; fruit 0.7-1cm wide | 9. <i>S. singueana</i> |

1. *Senna alexandrina* Miller

(*Cassia senna* L.)

Shrub 0.3-3m. Leaves with 4-8 pairs of leaflets; leaflets narrowly elliptic, apex acute, 1.5-5 by 0.4-0.9cm, puberulous (var. *alexandrina*); elliptic, apex rounded and occasionally with a mucro, to 2.5 by 1.2cm, puberulous (var. *obtusata*). Flowers yellow, petals 0.7-1.7 by 0.7-0.9cm. Fruits flattened, oblong, 4-7 by 1.6-2.6cm.

- var. *alexandrina*: a single collection (Jeffrey K 392) from Mfumbini beach, Kilifi, in bushland.

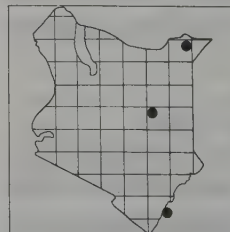
- var. *obtusata* (Brenan) Lock; K1; 90-600m; VI, IX Grassland or dry bushland. Collected only twice; a rare subspecies, also in Somalia.

Msahala (SWA).

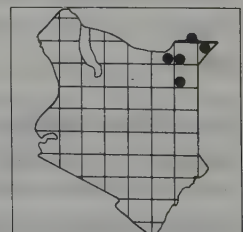
2. *Senna baccarinii* (Chiov.) Lock

(*Cassia baccarinii* Chiov.)

Shrub or tree 2-7m; bark smooth, black in young



Senna alexandrina



Senna baccarinii

shrubs. Leaves with (2) 4-6 pairs of leaflets; leaflets elliptic, apex rounded or emarginate, 1-3 by 0.4-2cm, minutely puberulous. Flowers yellow; petals 1.3-2 by 1-1.5cm. Fruit flattened, oblong, beaked when young, 5-7.5 by 1-2cm.

K1; 350-950m; I, XII *

Dry (*Acacia*) bushland or *Commiphora* woodland along water courses.

Watu (BOR), Gel Fijis (SOM).

3. *Senna bicapsularis* (L.) Roxb.

(*Cassia bicapsularis* L.)

Shrub, often scrambling, 0.5-5m. Leaves with (2-)3 pairs of leaflets; leaflets obovate or subcircular, apex rounded, 1-3.5 by 0.7-2.5cm, glabrous. Flowers yellow (-orange), petals 1-1.3 by 0.6-0.9cm. Fruit brown, cylindrical, straight, 8-15 by 1-1.5cm.

K3457; 1-1750m; I-VI, VIII-XII

An escape from cultivation, gone wild and established in old cultivations, wooded or bushed grassland, often along the sea, lakes or rivers.

Mukengeka, Musingili (KAM), Nyai-leka (LUO).

4. *Senna didymobotrya* (Fresen.) Irwin & Barneby

(*Cassia didymobotrya* Fres.)

Shrub or (in optimal conditions) tree 1-7.5m. Leaves with 8-18 pairs of leaflets; leaflets elliptic, apex rounded or obtuse, with a mucro 1-3mm long, 2-6.5 by 0.6-2.5cm, more or less pubescent. Flowers yellow, petals 1.8-2.7 by 1-1.6cm. Fruits flattened, oblong, 8-12 by 1.5-2.5cm.

K13456(?); (700)1500-2250m; I-II, VI-XII

Riverine, by lake shores, at forest edges (in damp sites).

Inyumganai (KAM), Mwinu/Mwino (KIK), Senetwet (KIP, NAN), Ovino (LUO), Luvinu (LUH), Osenetoi (MAA), Senetwet (MAR), Kirao (MER), Mbinu, Mshua (TAI), Senetiet (TUG). The bark contains tannin. The leaves are used as a fish poison, and the

leaf infusion is used as an emetic against malaria by the Kipsigis. Stems used against ringworm by the Luhya. Poisonous.

5. *Senna longiracemosa* (Vatke) Lock

(*Cassia longiracemosa* Vatke)

Shrub or small tree 0.5-4(?)m. Leaves with 5-13 pairs of leaflets; leaflets elliptic, subcircular, or slightly obovate, apex rounded or subacute, usually with a mucro of 0.5-2mm, 0.7-2.5 by 0.4-1.8cm, pubescent. Flowers yellow, petals 1.4-2.8 by 0.8-1.5cm. Fruit purplish or blackish, flattened, oblong, 3.5-7.5 by 1-1.8cm.

K12467; 300-1000(2100)m; I-XI

Dry bushland or bushed grassland, in Northern Kenya nearly always riverine or by luggas.

Mwenu (KAM), Sanatoi/Saigurugui (SAM), Mukangu (TAI), Emang/Ekamuka (TUR). Used as a remedy for malaria by the Samburu.

6. *Senna obtusifolia* (L.) Irwin & Barneby

(*Cassia obtusifolia* L.)

Woody herb or shrub, 0.5-2m. Leaves with 3 pairs of leaflets; leaflets obovate, apex rounded and often mucronate, 1.5-5.5 by 1-3.5cm, pubescent or nearly glabrous. Flowers (orange-)yellow, petals 1-1.9 by 0.5-0.7cm. Fruits (sub-)cylindrical, linear, straight or curved, 11-23 by 0.4-0.6cm.

K1234567; 1-1650m; II-IV, VI-X, XII

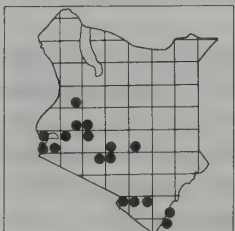
Riverine, near luggas, on lake-shores, or in cultivated land.

Cheporon (PKT), Emang/Emany (TUR). A root decoction is used in children's medicine by the Pokot.

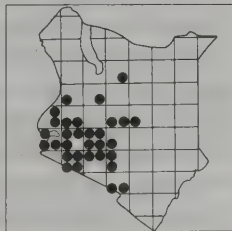
7. *Senna petersiana* (Bolle) Lock

(*Cassia petersiana* Bolle)

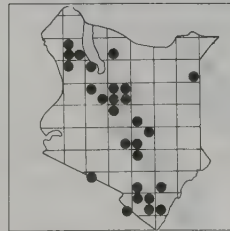
Shrub or tree 2-6(12)m; bark rough, fissured. Leaves with 4-10 pairs of leaflets; leaflets ovate or elliptic, apex gradually acuminate, 3-10 by 1-4cm, thinly



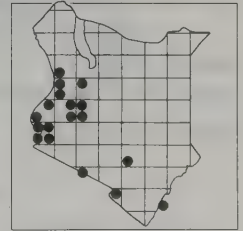
Senna bicapsularis



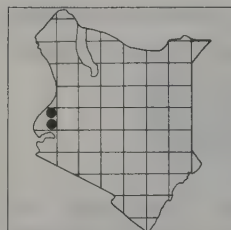
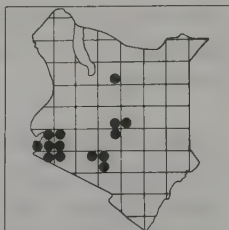
Senna didymobotrya



Senna longiracemosa



Senna obtusifolia

*Senna petersiana**Senna septemtrionalis*

pubescent. Flowers yellow, petals 1.5-3.2 by 0.9-2cm, the largest with a dentate margin. Fruits somewhat flattened, linear, 12-25 by 0.7-1.5cm.

K35; 1100-2100m; VIII-XI *

Riverine forest, moist forest (edge), wooded grassland, evergreen bushland (data from FTEA; Kenya notes are scarce).

Mbaraka (SWA), Kivukelele (KAM), Aiuandet, Chebaywa (SEB), Mhojaavandu (TAV).

8. *Senna septemtrionalis* (Viviani) Irwin & Barneby
(*Cassia floribunda* Cav.)

Shrub 1-3(5)m. Leaves with 3-4 pairs of leaflets; leaflets ovate or elliptic, apex gradually acuminate, 4-11 by 2-4cm, glabrous. Flowers yellow, petals 1-1.8 by 1-1.4cm. Fruits brown, subcylindrical, 6-10 by 1-1.5cm.

*Senna singueana*

K13456; (700-) 1450-2200m; I-III, V-VII, IX-XII
Dry or moist forest (edge), riverine, waste places, grassland; probably originally from America.
Omochegeche (KIS), Chemul senetwet/senetwet ap chimbek (KIP), Esenetoi (MAA).

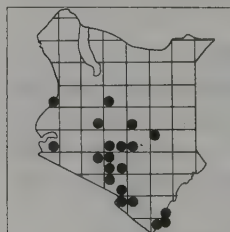
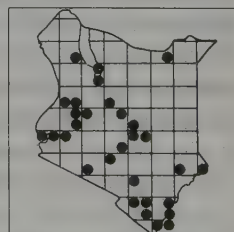
9. *Senna singueana* (Del.) Lock
(*Cassia singueana* Del.)

Shrub or tree 1.5-7.5(15)m. Often flowering when leafless. Leaves with 6-10 pairs of leaflets; leaflets elliptic or obovate, apex rounded and often emarginate, occasionally mucronate, rarely subacute, 2.5-6 by 1.4-2.7cm, glabrous or pubescent. Flowers yellow, sometimes without stamens; petals 15-30mm long. Fruit subcylindrical, 5.5-26 by 0.7-1cm.

K134567; 1-2250m; I-III, V-XI

Bushed or wooded grassland, dry or coastal bushland, often on termite-mounds, in luggas or riverine.

Mbaraka (SWA), Muhumba (DIG), Muhumbu (GIR), Mukengeka, Munyunga-Nai (KAM), Kumusilamosi (LUH), Senetoi (SAM), Msua, Mwangia (TAI). Root used for stomach medicine. Poisonous? Ripe fruits edible?

*Senna singueana**Tamarindus indica*

22. TAMARINDUS

Trees. Leaves paripinnate with opposite leaflets. Flowers in lateral and terminal racemes; sepals 4; petals 5 with 3 upper large ones, 2 lower minute ones; stamens 3. Fruit sausage-like.

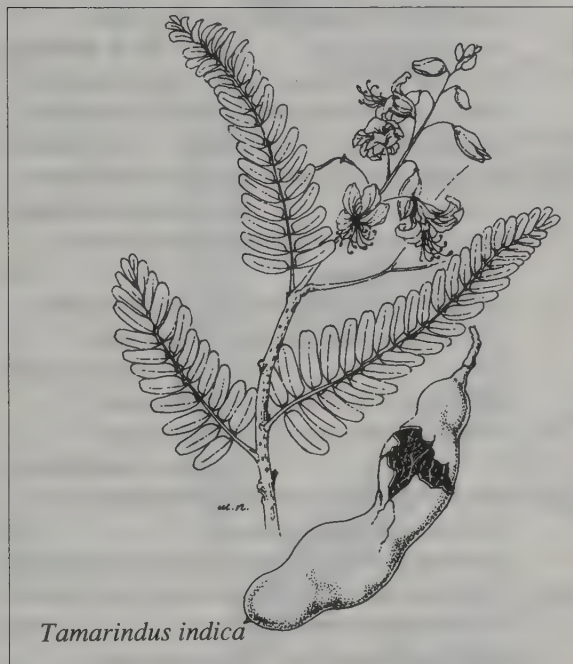
***Tamarindus indica* L.**

Tree 4-15m with thick bole and spreading crown; bark rough, grey-brown. Leaves with 9-21 pairs of leaflets; leaflets oblong, base unequal, apex rounded, 12-32 by 3-11mm; glabrous but with a tuft of yellow hairs near the base. Flowers yellow, veined with red, petals to 13mm. Fruits rusty-brown, straight or curved, cylindrical but often irregularly constricted, 6-14 by 2-3cm.

K1234567; 1-1500m; III-VI, VIII, XI-XII

Riverine, in bushland, in wooded grassland; near the coast also in open forest.

Tamarind (STAND), Mkwaju (SWA, DIG, TAI), Ukwayu (BAJ), Groha (BOR), Mukai (BON), Morhoqa (ILW), Kithumula (KAM), Chwaa, Ochwa (LUO), Oloisijoi (MAA), Aron (MAR), Muthithi (MER), Rhoka (ORM), Aron/oron (PKT), Rogei (SAM), Roka (SAN), Hamar, Rakhai (SOM), Muzumura, Musumera (TAV), Arwe (TUG), Epeduru (TUR). Fruits are edible, and a pleasant drink (which is laxative) is made from them. The wood produces good charcoal. Makes good walking sticks. Boran say the leaves are salty, and therefore given to stock.



147. MIMOSACEAE

Trees, shrubs or lianas, often with prickles or spines. Leaves bipinnate (in all Kenyan species). Inflorescence with small, regular, (3-)5(-6) merous flowers in spikes, racemes or heads. Sepals usually united; petals free or united. Stamens 4-many, usually more or less exserted. Fruit various.

1. Plants armed with spines or prickles on the branches or trunk 2
- * Plants unarmed on the branches or trunk 6

2. Plants with spines terminating lateral twigs (which bear leaves or flowers) 3
- * Plants with spines or prickles on the branches, but not terminal on twigs 4
3. Pinnae in 1 pair; flowers white; fruit not twisted 3. *Calliandra*
- * Pinnae in 2-9 pairs; flowers in 2-coloured inflorescence; fruit twisted 4. *Dichrostachys*
4. Leaves with a prickle at the insertion of each pair of pinnae 7. *Mimosa*
- * Leaves unarmed or with a few prickles on the rachis 5
5. Leaf with one pair of pinnae 10. *Pithecellobium*
- * Leaf with more than one pair of pinnae 1. *Acacia*
6. Leaflets alternate or subopposite; fruit winged on flat side 12. *Tetrapleura*
- * Leaflets opposite; fruit without wings 7
7. Rachis of leaf ending in a tendril 5. *Entada*
- * Rachis of leaf without end-tendril 8
8. Pinnae in 1 pair; leaflets up to 3 by 1mm 3. *Calliandra*
- * Pinnae in more than 1 pair, or leaflets more than 3mm wide 9
9. Flowers in elongated spikes 10
- * Flowers in round heads 11
10. Leaf-rachis with a gland between each pair of pinnae 8. *Newtonia*
- * Leaf-rachis not glandular 13
11. Flowers and fruits on a hanging, club-shaped inflorescence; petiole usually with 2 large glands near the base. (Coastal) 9. *Parkia*
- * Flowers in globose heads on an erect peduncle; petiole without glands 12
12. Stamens 10; petals free; seeds 4-5 mm wide 6. *Leucaena*
- * Stamens many; petals with a tube; seeds 6.5-13 mm wide 2. *Albizia*
13. Fruit splitting transversely, but leaving the empty frame; petals glabrous outside 5. *Entada*
- * Fruit splitting along whole length; petals hairy outside 11. *Pseudoprosopis*

1. ACACIA

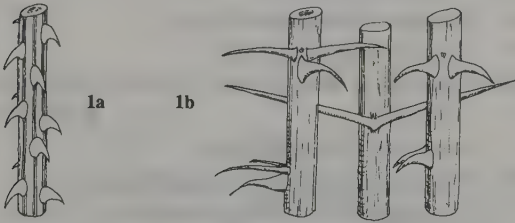
Branches with prickles or spines. Leaves bipinnate; usually with a gland on the petiole, and often on the rachis as well. Flowers in spikes, racemes, or globose heads, fragrant. Stamens many. Fruit a pod, dehiscent or indehiscent.

Key 1: Acacias which flower before the leaves appear.

- | | | |
|----|---|----------------------------|
| 1. | Flowers in round heads | 2 |
| * | Flowers in spikes | 4 |
| 2. | Prickles recurved, 2-6mm long | 32. <i>A. reficiens</i> |
| * | Spines straight, 5-50mm long | 3 |
| 3. | Bark dark green (brown) | 28. <i>A. paolii</i> |
| * | Bark (reddish) brown | 38. <i>A. stuhlmannii</i> |
| 4. | Prickles in 3's (rarely 1) | 39. <i>A. thomasii</i> |
| * | Prickles in 2's | 5 |
| 5. | Flowers white or cream (reddish in bud) | |
| | | 23. <i>A. mellifera</i> |
| * | Flowers pink or white | 30. <i>A. persiciflora</i> |

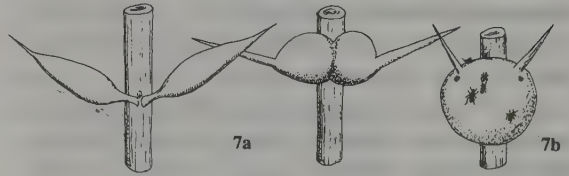
Key 2: Acacias with leaves

- | | | |
|----|--------------------------------------|---|
| 1. | Prickles scattered along internodes | 2 |
| * | Spines/prickles at or near the nodes | 6 |

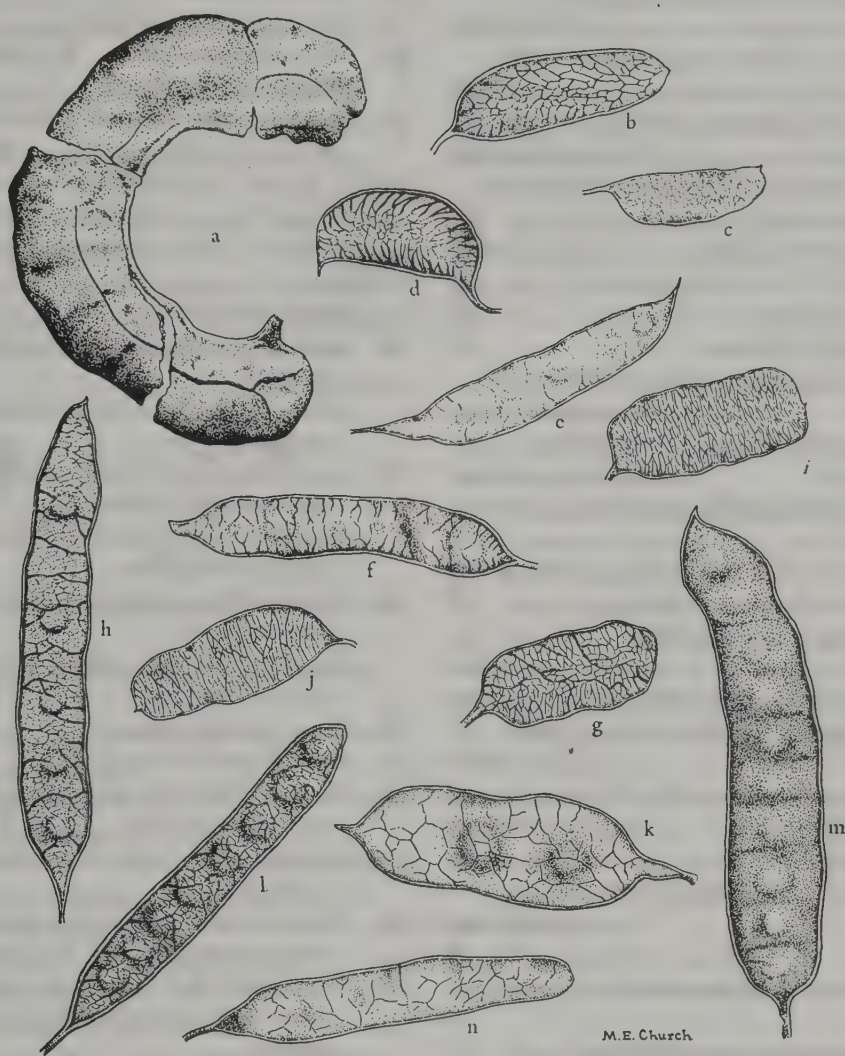


- | | | |
|----|--|--------------------------|
| 2. | Petiole less than 1.5cm long | 3 |
| * | Petiole more than 1.5cm long | 5 |
| 3. | Young branches glandular; petiolar gland sessile; flowers in heads | 4 |
| * | Young branches eglandular; petiolar gland stalked; flowers in spikes | 5. <i>A. ataxacantha</i> |
| 4. | Leaflets with central midrib; branchlets lenticellate (Coast) | 2. <i>A. adenocalyx</i> |
| * | Leaflets with excentric midrib; branchlets hardly lenticellate | 6. <i>A. brevispica</i> |
| 5. | Young branches glandular; Kakamega | 24. <i>A. montigena</i> |
| * | Young branches eglandular; central and coastal | 29. <i>A. pentagona</i> |
| 6. | Spines with inflated part ("ant-galls") | 7 |

- | | | |
|----|----------------------------------|----|
| * | Spines without inflated part | 12 |
| 7. | Inflated part of spine elongated | 8 |



- | | | |
|-----|---|-----------------------------|
| * | Inflated part of spine sessile and globose | 10 |
| 8. | Shrubs or trees of dry bushland/woodland; flowers in spikes; fruit 2-6.5cm long | 9 |
| * | Large trees of sandy river-banks; flowers in heads; fruit 3-12cm long | 12. <i>A. elatior</i> |
| 9. | Obconical bush; inflated part of spine hardly narrowed at base; fruit 1.5-2.5cm wide | 18. <i>A. horrida</i> |
| * | Tree with well-defined trunk, rarely branched from base; inflated part of spine constricted at base; fruit 0.8-1.5cm wide | 7. <i>A. bussei</i> |
| 10. | Bark dark grey or black; flowers white; fruit 4-7cm long | 10. <i>A. drepanolobium</i> |
| * | Bark yellow or orange-red; flowers yellow; fruit 5-20cm long | 11 |
| 11. | Leaflets in (7)11-20 pairs; dry flower-heads 10-13mm across; calyx 2-2.5mm long | 36. <i>A. seyal</i> |
| * | Leaflets in 3-10 pairs; dry flower-heads 7-10mm across; calyx 0.8-1.5mm long | 43. <i>A. zanzibarica</i> |
| 12. | Spines or prickles recurved; sometimes also a few straight spines present | 13 |
| * | Spines straight, no recurved prickles present | 27 |
| 13. | Prickles in 3(or rarely 1) the central one down-curved, the laterals upcurved | 14 |
| * | Prickles in 2 (rarely in 3 in <i>A. laeta</i> , all recurved) | 17 |
| 14. | Leaflets less than 3mm wide | 15 |
| * | Leaflets more than (3-)4mm wide | 27. <i>A. ogadensis</i> |
| 15. | Leaf-rachis with recurved prickles | 16. <i>A. hamulosa</i> |
| * | Leaf-rachis without prickles | 16 |
| 16. | Pinnae in (2)3-6 pairs; corolla 2.7-4mm | 35. <i>A. senegal</i> |
| * | Pinnae in 1-2(3) pairs; corolla 6.5-7mm | 39. <i>A. thomasii</i> |

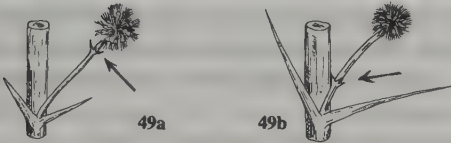
Fruits of *Acacia* species with spicate flowers

a: *A. albida* Del. from Thomson 3. b: *A. lahai* (Steud. & Hochst.) ex Benth. from Jackson 347A. c: *A. bussei* Harms ex Sjöstedt from Dale 720. d: *A. horrida* (L.) Willd. from Dale 732. e: *A. ataxacantha* DC. from Lebrun 1747. f: *A. thomasi* Harms from Bally 7470. g: *A. senegal* (L.) Willd. var. *senegal* from Hemming 97. h: *A. circummarginata* Chiov. from Hemming 433. i: *A. mellifera* (Vahl) Benth. subsp. *mellifera* Brenan from Greenway 8845. j: *A. laeta* R. Br. from Trapnell 2203. k: *A. goetzii* Harms subsp. *goetzii* from Koritschner 3050. l: *A. polyacantha* Willd. subsp. *campylacantha* (Hochst. ex A. Rich.) Brenan from Greenway 6350. m: *A. roovumae* Oliv. from Greenway 8859. n: *A. persiciflora* Pax from Gillett 14764. All $\times \frac{1}{2}$.

17. Leaflets in 1-4(5) pairs, 4-22 by 2-16mm, in 2-3(4) pairs of pinnae **18**
- * Leaflets in 5 or more pairs (or if in less than 5 pairs, less than 6x1.5mm) **19**
18. Leaflets mostly in 3-4 pairs per pinna **20. A. laeta**
- * Leaflets in 1-2 pairs (very rarely in 3 pairs) **23. A. mellifera**
19. Pinnae in (6)13-60 pairs; leaflets 0.4-0.8mm wide **31. A. polyacantha**
- * Pinnae in less than 10 pairs, or leaflets more than 1mm wide **20**
20. Leaflets 3-17 by 1-7mm **15. A. goetzei**
- * Leaflets 0.5-7.5 by 0.2-2.5mm **21**
21. Pinnae in 1-3 pairs **22**
- * Pinnae in (1)2-12 pairs **23**
22. Bark peeling to show green underbark; fruit curved **4. A. ancistroclada**
- * Bark fissured, not peeling; fruit straight **32. A. reficiens**
23. Flowers in spikes; fruit straight; leaf petiole 9-40mm **24**
- * Flowers in round heads; fruit curved or, if straight, leaf petiole 3-10mm **25**
24. Inland species, above 1400m **30. A. persiciflora**
- * Coastal species, below 300m **34. A. royumae**
25. Fruit straight; leaf petiole without glands **13. A. etbaica**
- * Fruit curved; petiole usually with a gland **26**
26. Fruit slightly curved **14. A. gerrardii**
- * Fruit strongly curved **40. A. tortilis**
27. Spines 1 or 3 (Mandera - Ramu area) **8. A. condyloclada**
- * Spines 2 **28**
28. Bark yellow or yellow-red with green under-bark **29**
- * Bark not this colour, or unknown **32**
29. Pinnae in 6-14 pairs; bark not powdery **19. A. kirkii**
- * Pinnae in 1-8 pairs; bark often powdery **30**
- * Pinnae in 1-8 pairs; bark not powdery **17. A. hockii**
30. Leaflets 2-13 by 0.5-6mm **43. A. zanzibarica**
- * Leaflets 2-6.5 by 0.7-2mm **31**
31. Tree of dry sites; flowers yellow; fruit curved **36. A. seyal**
- * Tree of wet sites; flowers white or purplish; fruit straight or slightly curved **42. A. xanthophloea**
32. Plant in flower **33**
- * Plant in fruit **59**
33. Flowers in spikes **34**
- * Flowers in globose heads **39**
34. Flowers bright yellow **9. A. dolichocephala**
- * Flowers white or cream **35**
35. Spines less than 6mm long; found at the coast below 50m alt. **34. A. royumae**
- NOTE: Species "A" of FTEA keys out here, but is distinguished from *A. royumae* by it's leaves which are over 3mm wide. It has been found once (Jeffrey 584) at Kibarani.
- * Spines mostly longer **36**
36. Leaves with a gland between each pair of pinnae **3. A. albida**
- * Leaves with a gland on the petiole, but not between pinnae **37**
37. Inflorescence axis densely glandular; found at altitudes 1500-2700m **21. A. lahai**
- * Inflorescence axis hardly or not glandular; found below 1050m **38**
38. Plants 3-16m high; leaflets 7-18 per pinna (fruit straight) **7. A. bussei**
- * Plant 0.5-2.5m high; leaflets 5-11 per pinna (fruit falcate) **18. A. horrida**
39. Flowers bright yellow **40**
- * Flowers white or cream **45**
40. Heads of flowers in large branched panicles; rachis 8-32cm long **22. A. macrothyrsa**
- * Heads of flowers most often singly; rachis up to 9cm long **41**
41. Spines/prickles 1-4mm long; petiole 15-30mm long; rachis eglandular **9. A. dolichocephala**
- * Spines more than 5mm long; petiole 3-20mm long; rachis glandular between top pairs of pinnae **42**
42. Leaflets in 3-10 pairs per pinna, 2-13 by 0.5-6mm **43. A. zanzibarica**
- * Leaflets in 7-30 pairs per pinna, 1.5-7 by 0.5-1.5(2)mm **43**
43. Young branches powdery **36. A. seyal**
- * Young branches not powdery **44**
44. Branchlets glandular **17. A. hockii**
- * Branchlets eglandular **25. A. nilotica**
45. Leaflets very small, up to 3 by 0.5mm; pinnae in 15-40 pairs; petiole 2-5mm

1. *A. abyssinica*

- * Leaflets larger, more than 0.5mm wide; pinnae in 1-15(23) pairs **46**
- 46.** Peduncles densely glandular, at least below; involucre 2-3.5mm **47**
- * Peduncles eglandular or nearly so; involucre 1-2mm **49**
- 47.** Young branches densely pubescent **14. *A. gerrardii***
- * Young branches glabrous or sparsely pubescent **48**
- 48.** Leaves with 6-14 pairs of pinnae; branchlets brown or redbrown **19. *A. kirkii***
- * Leaves with 3-6 pairs of pinnae; branchlets pale yellow **42. *A. xanthophloea***
- 49.** Involucre above the middle of the pedicel **37. *A. sieberiana***

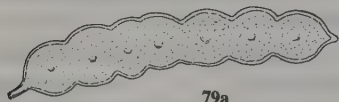


- * Involucre at or below the middle of the pedicel **50**
- 50.** Young branches hairy, hairs more than 1mm long **51**
- * Young branches glabrous, or hairy with hairs less than 1mm long **52**
- 51.** Calyx glabrous or nearly so **28. *A. paolii***
- * Calyx more or less pubescent outside **38. *A. stuhlmannii***
- 52.** Corolla lobes outside glabrous or nearly so (mostly riverine species) **53**
- * Corolla lobes outside (densely) hairy **56**
- 53.** Young branches hairy **54**
- * Young branches glabrous **55**
- 54.** Leaflets 0.5-1.4mm wide; petiole 3-10mm **12. *A. elatior***
- * Leaflets 1-2mm wide; petiole 7-25mm **14. *A. gerrardii***
- 55.** Leaflets 0.5-1.4mm wide; petiole 3-10mm **12. *A. elatior***
- * Leaflets 1-2mm wide; petiole 7-20mm **33. *A. robusta***
- 56.** Tree 7-40m of riverine habitats **12. *A. elatior***
- * Shrub or small tree 0.3-6m of dry habitats **57**
- 57.** Spines 2-6.5cm long; calyx 3-3.8mm long;

41. *A. turnbulliana*

- * Spines 0.4-3.5cm long; calyx 1-2mm long; petiole 3-16mm **58**
- 58.** Shrub 0.3-2m high, with leaflets to 3.5mm long. Mendera area only **11. *A. edgeworthii***
- * Shrub or small tree 1-6m high, with leaflets 2.5-7mm long **26. *A. nubica***
- 59.** Valves of fruit thickened, woody or pulpy **60**
- * Valves of fruit not thickened **67**
- 60.** Fruit densely pubescent or shortly grey-tomentose **61**
- * Fruit glabrous or puberulous **64**
- 61.** Hairs on fruit long (1mm) **38. *A. stuhlmannii***
- * Hairs on fruit shorter **62**
- 62.** Tree 1.5-12m; valves with raised bumps **25. *A. nilotica***
- * Shrub 0.3-3m, valves more or less smooth; Northern Kenya only **63**
- 63.** Petiole 3-9mm; rachis 5-45mm; fruit not attenuate at base **11. *A. edgeworthii***
- * Petiole 10-25mm; rachis (15)40-120mm; fruit attenuate at base **41. *A. turnbulliana***
- 64.** Fruit strongly curved **3. *A. albida***
- * Fruit straight or nearly so **65**
- 65.** Fruit somewhat segmented, each segment with a small projection on the flat side **19. *A. kirkii***
- * Fruit smooth-sided, margin entire **66**
- 66.** Petiole (1)2-4cm; spines 3-6mm; leaflets 1.5-2.5mm wide **34. *A. rostrata***
- * Petiole 0.2-1cm; spines 6-120mm; leaflets 0.5-1.5mm wide **37. *A. sieberiana***
- 67.** Pinnae in more than 15 pairs **3. *A. albida***
- * Pinnae in 1-15 pairs **68**
- 68.** Fruit curved **69**
- * Fruit straight or nearly so **78**
- 69.** Fruit long-pubescent (hairs 1-4mm long) **28. *A. paolii***
- * Fruit glabrous or with hairs shorter than 1mm **70**
- 70.** Leaflets 2-13 by 0.5-6mm **43. *A. zanzibarica***
- * Leaflets 3-7.5 by 0.5-2mm **71**
- 71.** Fruit more than 1.5cm wide **72**
- * Fruit less than 1.5cm wide **74**
- 72.** Fruit 7-22cm long **14. *A. gerrardii***
- * Fruit 2.3-7cm long **73**
- 73.** Shrub or tree 0.5-2.5m high with 5-11 pairs of leaflets per pinna **18. *A. horrida***
- * Tree 3-15m high with 10-28 pairs of leaflets

- per pinna 21. *A. lahai*
74. Spines usually 1.5-10cm long 75
- * Spines usually less than 2cm long 76
75. Fruit 4-7mm wide 36. *A. seyal*
- * Fruit 6-14mm wide
42. *A. xanthophloea* + 33. *A. robusta*
76. Young branches glabrous 33. *A. robusta*
- * Young branches puberulous or pubescent 77
77. Fruit 6-17mm wide; branchlets eglandular
14. *A. gerrardii*
- * Fruit 4-9mm wide; branchlets; densely glandular 17. *A. hockii*
78. Fruit long-pubescent (hairs > 1mm)
28. *A. paolii*
- * Fruit glabrous or with short hairs 79
79. Fruits more or less moniliform 80



- * Fruits with more or less straight edges 81
80. Pinnae in 6-14 pairs; fruit often with small projections on flat side 19. *A. kirkii*
- * Pinnae in 3-6(8) pairs; fruit without projections
42. *A. xanthophloea*
81. Fruit with a 1-3.5mm wide wing all around
26. *A. nubica*
- * Fruit without wing 82
82. Leaflets 0.5-6mm wide and fruit 4-7mm wide
43. *A. zanzibarica*
- * Leaflets up to 1.8mm wide or, if wider, fruit more than 15mm wide 83
83. Petiole more than 15mm long 84
- * Petiole less than 15mm long 86
84. Spines up to 9cm long; fruit puberulous, 2-6.5cm long 7. *A. bussei*
- * Spines up to 1.6cm long; fruit glabrous, 5-20cm long 85
85. Leaflets 2.5-7.5 by 0.5-1.5mm; rachis of leaf 5-9cm 9. *A. dolichocephala*
- * Leaflets 6-15 by 1-4mm; rachis of leaf 6-32cm
22. *A. macrothyrsa*
86. Pinnae in 15-40 pairs; leaflets less than 0.5mm wide 1. *A. abyssinica*
- * Pinnae in less than 15 pairs 87
87. Riparian trees with flowers in heads; glands

- present between upper pinnae 88
- * Trees not from riverbanks, with flowers in spikes; no glands on rachis 89
88. Epidermis of branchlets not flaking 12. *A. elatior*
- * Epidermis of branchlets flaking, exposing powdery inner layer 42. *A. xanthophloea*
89. Fruit 8-15mm wide puberulous; found at altitudes below 1000m 7. *A. bussei*
- * Fruit 15-30mm wide; glabrous; found at altitudes above 1500m 21. *A. lahai*

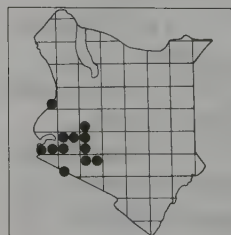
1. *Acacia abyssinica* Benth. ssp. *calophylla* Brenan
Tree 6-20m; crown flat; bark rough, greybrown. Spines in pairs at nodes, whitish when elongate, straight, 4-40mm, sometimes absent. Leaves with 15-40 pairs of pinnae in mature shoots (less in reduced leaves); leaflets in 20-30 pairs, to 3 by 0.5mm. Flowers in heads; calyx and corolla red, stamens white. Fruit grey or brown, straight or slightly curved, 5-12 by 1.2-2.1cm, somewhat glandular and sometimes puberulous, dehiscent.

K345(6); 1200-2300m; I-V, VII, X, XII
Acacia woodland, wooded grassland, and forest edge. Common in Lake Province.
Mugaa/Mugunga (KIK), Sirtuet (KIP), Eyesurura, Omonyeya (KIS), Ogongo (LUO), Munyenya (LUH), Seretuet (NAN), Lelnet (OKI), Hatat (PKT), Marambajet (SEB).

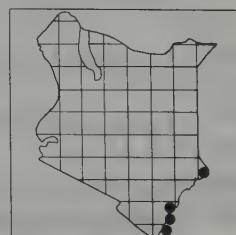
2. *Acacia adenocalyx* Brenan & Exell

Shrub or small tree 0.5-4m, once reported as a climber to 9m. Young branches glandular. Prickles scattered, curved downwards, 1-6mm long. Leaves with 10-20 pairs of pinnae; leaflets in 15-35 pairs, 2-4 by 0.3-0.8mm. Flowers in heads, white. Fruit dark brown, straight, 6.5-15 by 1.6-3.6cm, glandular, glabrous or puberulous, dehiscent.

K7; 1-1000m; III, VI, IX, XI *



Acacia abyssinica



Acacia adenocalyx

Dry (*Cynometra*) forest, bushland, or bushed grassland.

Mbirandu (GIR), Kichuke-cha-paka (SWA), Gora (SAN).

Note: Bally 13120, mile 113 Nairobi-Kitui, keys out as this species; but *A. adenocalyx* is restricted to the coast in all other instances.

3. *Acacia albida* Del.

[*Faidherbia albida* (Del.) A. Chev.]

Tree 3-15m(30)m; crown spreading; bark rough, brown or grey; branches whitish. Spines in pairs at nodes, straight, 4-20mm long. Leaves with 2-10 pairs of pinnae; leaflets in 6-23 pairs, 3.5-6 by 0.7-2.3mm. Flowers in 3.5-14cm long spikes, cream. Fruit bright orange, falcate or curled into a coil, 6-25 by 1.8-3.5(5)cm, glabrous or rarely puberulous, indehiscent. K12367; 550-1800m; I, II, IX, XI *

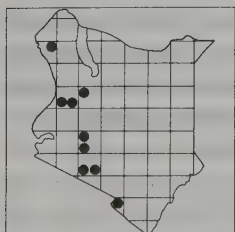
Riverine in dry areas, lakesides, or groundwater forest. Kababu (common), Apple Ring Acacia (STAND), Ol-Erai, Ol-Asiti (MAA), Sangak (PKT), Duyet, Dalyet (SEB), Mukababu (TAI, TAV), Ekurichanait (TUR). The pods are called Adurko in Turkana, and are eaten by livestock. The bark contains tannin. Used for timber.

4. *Acacia ancistroclada* Brenan

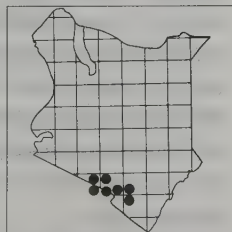
Shrub or tree 1.8-9m with dense crown; bark brownish or yellow, peeling to show green underbark. Spines sometimes straight, 2-6cm long but mostly recurved, 2-8mm long. Leaves with 1-3 pairs of pinnae; leaflets in 5-11 pairs, 2-5 by 0.7-1.5mm. Flowers in heads, yellow. Fruit falcate, slightly constricted between the seeds, 6-15 by 0.4-0.6cm, glabrous, dehiscent. K467; 700-1550m; III-IV, X-XII *

Dry bushland or bushed/wooded grassland. Rather common around Amboseli; endemic to northern Tanzania and southern Kenya.

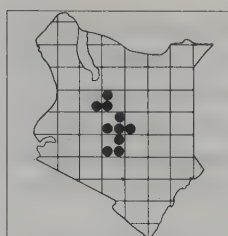
The bark is used to make string.



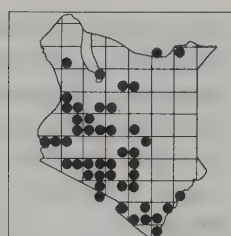
Acacia albida



Acacia ancistroclada



Acacia ataxacantha



Acacia brevispica

5. *Acacia ataxacantha* DC.

Shrub or small tree, but most often liana, 2-6(15)m; bark grey. Recurved prickles scattered over branches, 3-8mm long, (purple-) brown. Leaves with 6-25 pairs of pinnae; leaflets in 14-60 pairs, 2-7 by 0.5-1.5mm. Flowers in 4-11cm long spikes, cream or white. Fruit purple-brown, straight, 6-14 by 1-2.4cm, puberulous or glabrous, dehiscent.

K14; 550-1800m; IV-V, X-XII *

Dry (*Acacia-Commiphora*) bushland, often on rock or near rivers.

Note: Gillett 18709, a sterile collection from wet forest in the Shimba Hills, resembles this species.

Gorgor (REN), Igirrigirri (SAM).

6. *Acacia brevispica* Harms ssp. *brevispica*

(Scandent) shrub or tree 1-5m, sometimes thicket-forming. Prickles scattered, arising from longitudinal bands, recurved or spreading, 1-6mm long. Leaves with 6-18 pairs of pinnae; leaflets in 20-40 pairs, 2-6 by 0.5-1mm. Flowers in heads in a raceme or panicle, white or yellow-white; main axis of inflorescence characteristically zig-zag. Fruit purplebrown, straight, 4.5-15 by 1.5-3.3cm, glabrous or puberulous, glandular, dehiscent.

K1234567; 1-1800m; I-XII

Dry (e.g. *Acacia*) bushland or (*Acacia mellifera-Combretum molle*) woodland, thickets, dry upland forest edges; often on rocky or stony soil.

Wait-A-Bit Thorn (STAND), Mwarare (SWA), Gorgor, Hammarress (BOR), Mukusw'i Kikusw'i (KAM), Muguchwe (KIK), Ngirigiri (KIP), Osiri (LUO), Ol-Girigiri (MAA), Aiman, Kiptare, Kornisw (MAR), Kaptaruu (PKT), Girigiri, Lkirikiri (SAM), Furgorri, Faranganga (SOM), Garnista (TUG), Ekurau (TUR). Branches are used in roofs of huts.

7. *Acacia bussei* Sjøstedt

Shrub or tree 3-10(16)m; bark dark grey or blackish,

longitudinally fissured. Spines in pairs at the nodes, straight or slightly curved, often inflated but then constricted near the base, whitish, 0.3-9cm long. Leaves with 2-8 pairs of pinnae; leaflets in 7-18 pairs, 1.5-5 by 0.5-1mm. Flowers in 2-6cm long spikes, white or cream. Fruit brown, straight, 2-6.5 by 0.8-1.5cm, dehiscent.

K147; 1-1000m; III, VIII-XI *

Dry (*Acacia-Commiphora*) bushland, bushed grassland, or (*Acacia-Commiphora-Combretum*) woodland; mostly on sandy soils.

Halo (BOR), Goloch (ORM), Galol, Gollol (SOM).

Bark used to make rope by the Boran and Somali.

8. *Acacia condyloclada* Chiov.

RARE

Tree 2-11m; bark white or yellow, peeling to show powdery grey-white underbark. Spines in 1-3 just below the nodes, slightly recurved or straight, 3-9mm long. Leaves with 3-4 pairs of pinnae; leaflets in 6-10 pairs, 9-20 by 3.5-9mm. Flowers (not seen for Kenya) in 7-12cm long spikes, colour unknown. Fruit grey-or purple-brown, straight, 6-13 by 1.8-2.4cm, dehiscent.

K1, known from 2 collections west of Ramu; 450-800m; - *

Acacia-Commiphora bushland on limestone slopes. Adad Geri (SOM).

9. *Acacia dolichocephala* Harms

RARE

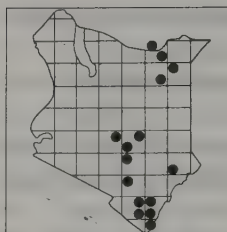
Tree 4-7.5m. Spines in pairs at the nodes, straight, 1-4mm long. Leaves with 6-14 pairs of pinnae; leaflets in 12-35 pairs, 2.5-7.5 by 0.6-1.5mm. Flowers in very short spikes or ellipsoid heads 1-1.5 by about 1cm, orange-yellow. Fruit purple-brown, straight or slightly falcate, 5.5-10 by 1-1.9cm, glabrous, dehiscent.

K2; 1350-1650m; X *

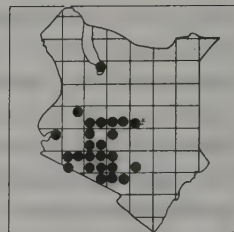
Rocky sites (riverine?) at the base of the Kacheliba Escarpment.

10. *Acacia drepanolobium* Sjøstedt

Shrub or tree 1-6m with a flat and spreading crown; bark grey or black, rough, finely fissured. Spines in pairs at the nodes, some with large, purple or black swollen base (to 3.5cm across), straight, grey or whitish, (0.6)1.5-6cm long. Leaves with 3-13 pairs of pinnae; leaflets in 11-22 pairs, 1.5-5.5 by 0.7-1.2mm. Flowers in heads, white or cream. Fruit brown-red or black, falcate or spiral-shaped, 4-7 by 0.5-1cm, dehiscent.



Acacia bussei



Acacia drepanolobium

K13456; 750-2550m; I-IV, VIII-XII

Wooded grassland, (clump) bushed grassland or grassland, often (in the Rift Valley) common to abundant, usually on black cotton soil. Whistling thorn; Black Galled Acacia (STAND), Kiunga, Muuga (KAM), Mugurit (KIP), Adugo, Gugna (LUO), Eluai (MAA), Fulai (REN), Luai, Rangau (SAM), Ngowo (TUG), Eiyellel (TUR). Young galls and young fruits are edible; branches are used to make boma's; bark is chewed for sore throat by the Maasai; root decoction given to mothers who have just given birth by the Maasai.

11. *Acacia edgeworthii* T.Anders

Shrub 0.3-2m, flat-topped and much spreading. Spines in pairs at the nodes, straight, 0.4-3.5cm long. Leaves with 4-10 pairs of pinnae; leaflets in 6-20 pairs, 0.7-3.5 by 0.5-1.5mm. Flowers in heads, white. Fruit (red-dish-)brown, straight or falcate, not flat but nearly cylindrical, 7-15 by 1.3-2.5cm, densely pubescent, dehiscent.

K1; 350-550m; - *

Acacia-Commiphora bushland: Ramu-Malka Murri area.

Gulu (SOM).

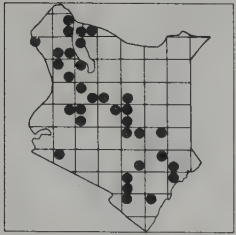
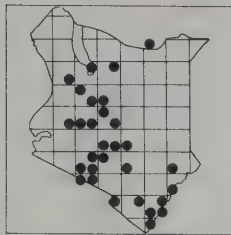
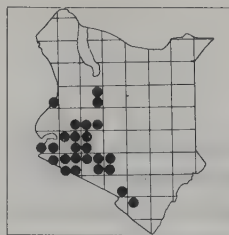
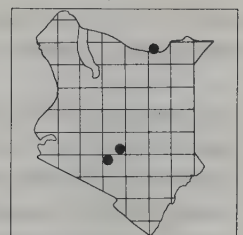
12. *Acacia elatior* Brenan

Tree 7-40m; crown rounded or flattish; bark blackish or grey-brown, fissured. Spines in pairs at the nodes, straight, short to 7mm or long and whitish to 9cm, sometimes the long ones inflated to about 6(15)mm across. Leaves with 5-13 pairs of pinnae; leaflets in (7)13-25 pairs, 1.2-4 by 0.5-1.4mm. Flowers in heads, white or pale yellow. Fruit (purplish-)brown, straight or slightly falcate, 3.5-12 by 1.2-1.8cm, dehiscent.

K123467; 1-1750m; II-VI, VIII-X

Along rivers and lakes, also near dry luggas and drainage lines.

Burkuke (BOR), Saetch (DAS), Munga (DUR), Muuga

*Acacia elatior**Acacia etbaica**Acacia gerrardii**Acacia goetzei*

(ILW), Chemnialiliet (KIP), Ollerai (MAA), Bura (ORM), Atat (PKT), Sesiai (SAM), Burra (SOM), Esanyanait (TUR). A bark decoction is used against diarrhoea by the Maasai; branches used to construct bomas, and as firewood. Turkana use a decoction of the inner bark for cough, and make drinking vessels from the wood.

- ssp. *elatior*- branchlets and leaves glabrous or nearly so; spines often inflated; fruit glabrous. K1467

- ssp. *turkanae* Brenan- branchlets and leaf-rachis pubescent; spines not inflated; fruit pubescent near base. K123

13. *Acacia etbaica* Schweinf.

Tree or rarely shrub (2)2.5-10m, with rounded or flat (in older trees) crown; bark reddish grey to dark grey, smooth or fissured. Spines in pairs at the nodes, of two kinds; small and recurved to 7mm long, and long to 6cm. Leaves with 1-9 pairs of pinnae; leaflets in 4-35 pairs, 0.5-4 by 0.2-1.3mm. Flowers in heads, white or cream. Fruit (purple-)brown, straight, 2-12 by 0.6-2.2cm, glabrous or puberulous, dehiscent.

K13467; 1-1800m; I-II, VI, VIII-XII *

Dry bushland, thickets, wooded grassland; occasionally subdominant.

Mgunga (SWA), Sigiiso/Alkabes (BOR), (H)allakabeesa (GAB), Kilaa, Muswiswi (KAM), Olossiamalil/Osiyamalili (MAA), Lchakwai (SAM), Enyethonait, Eliwo (TUR), Mirgi (REN). Used for making bomas, in building, as firewood.

- ssp. *platycarpa*- branchlets and leaf-rachis pubescent; fruit 10-22mm wide. K13467

= ssp. *uncinata*- branchlets and leaf-rachis puberulous; fruit 6-12mm wide. K17

There seem to be quite a few intermediates as regards the indumentum. Possibly these ssp. are synonymous.

14. *Acacia gerrardii* Benth.

Tree or shrub 0.5-15m with flat crown; bark brown or

dark grey, corrugated. Spines in pairs at the nodes, straight or recurved, mostly up to 1cm, rarely to 6cm long. Leaves with (3)5-12 pairs of pinnae; leaflets in (8)12-28 pairs, 3-7.5 by 1-2mm. Flowers in heads, white or cream. Fruit (reddish)brown, falcate, (4.5)7-22 by 0.6-1.7cm, dehiscent.

K134567; (900)1300-2200m; I-IV, VI-VII, IX-XII (*Acacia*) wooded grassland or bushy grassland, occasionally riverine.

Kithi, Muthii(KAM), Chepitet (KIP), Saie (LUO), Olongongwenyi (MAA), Rangan (SAM), Mtugo (TAI), Sebel Dit (TUG). Used to make bomas; soup is made from the bark.

Note: Brenan in FTEA distinguishes 3 varieties in Kenya. I think the distinction between var. *latisiliqua* and var. *gerrardii* cannot be upheld, as intermediates occur; but it is true that in the Nairobi-Machakos area the fruits are slightly wider and the thorns are more recurved. A single specimen ([Bally CM 12013](#)) from Taita Hills is cited as var. *calvescens* but looks like var. *gerrardii* to me.

15. *Acacia goetzei* Harms

Tree 6-14m with rounded crown; bark brown-grey, corrugated, but in young trees whitish and flaking. Prickles in pairs just below the nodes, recurved, to 7mm long. Leaves with 3-10 pairs of pinnae; leaflets in (2)5-23 pairs, 3-7 by 1-7mm. Flowers in 3-12cm long spikes, white or pale yellow. Fruit red- or purplish-brown, straight or nearly so, 5-17 by 2-3.3cm, glabrous or nearly so, dehiscent.

- ssp. *goetzei*- leaflets nearly all more than 3mm wide, slightly obovate.

K47; 1200-1450m; X *

Woodland or wooded grassland.

- ssp. *microphylla* Brenan- leaflets nearly all narrower than 3mm, oblong.

K1; 1080m; IV *

Relict in cultivation, formerly montane scrub; in drier

areas confined to watercourses.

Bura (BOR), Burraa (GAB).

16. *Acacia hamulosa* Benth.

Shrub or small tree 1.5-5m; bark red-brown. Prickles in threes at the nodes, the central one upcurved, the laterals recurved, central one upcurved, to 7mm long. Leaves with 3-6 pairs of pinnae, each pinna with a recurved prickly near the apex; leaflets in 6-12 pairs, 3-7 by 1-3mm. Flowers in 3-4cm long spikes, white or cream. Fruit pale brown, straight, 4-6.5 by 2-3.7cm, glabrous, dehiscent.

K1, 1/7; 150-1200m; XI-XII *

Dry bushland.

Osatari (ORM), Ethad (SOM).

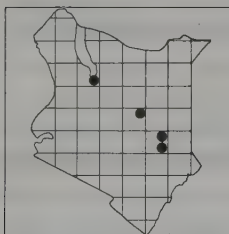
17. *Acacia hockii* De Wild.

Shrub or tree 1.5-6(9)m, often with flat crown; bark (where not burned) yellow, peeling, or (where burned) greybrown and in plates. Spines in pairs at the nodes, straight, 0.5-2 (less often to 4)cm. Leaves with 2-11 pairs of pinnae; leaflets in 9-29 pairs, 2-6.5 by 0.5-1(1.3)mm. Flowers in heads, yellow or orange. Fruit reddish, falcate, 5-15(-20) by 0.4-0.9cm, glabrous or puberulous, dehiscent.

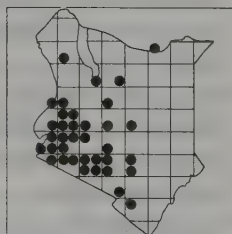
K1234567; 750-2250(2400)m; I-XII.

Wooded grassland, *Acacia* woodland, bushed grassland, deciduous or semi-evergreen bushland; an invader of (overgrazed) grassland.

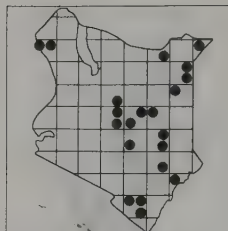
White thorn (STAND), Ekisim (ATE), Burguptet (BOR), Muuga (KAM), Mugaa (KIK), Lendet, Katet (KIP), Kudo, Oriang (LUO), Libwabwa (LUH), Ol-Jarbolani (MAA), Choror, Chunia (MAR), Tilatiliyet (NAN), Chooh (PKT), Lerai, Kanguu (SAM), Delya, Ndiniet (SEB), Kidenya (TAI), Echekereng (TUR), Igisurura (WAT). The bark is used for making rope; Maasai chew the white inner bark against thirst, and use the branches to construct bomas.



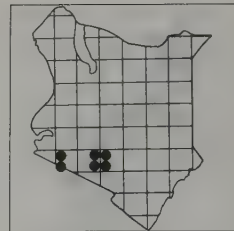
Acacia hamulosa



Acacia hockii



Acacia horrida



Acacia kirkii

18. *Acacia horrida* (L.) Willd.

ssp. *benadirensis* (Chiov.) Hillcoat & Brenan

Shrub or low tree, 0.5-2.5m, usually multistemmed and obconical. Spines in pairs at the nodes, straight, 0.5-9cm long; usually with a few spines swollen. Leaves with 2-6 pairs of pinnae; leaflets in 5-11 pairs, 2-6 by 0.7-1.8mm. Flowers in spikes 1-4.5cm long, white or cream. Fruit reddish brown, falcate, 2.3-6 by 1.5-2.5cm, glabrous or puberulous, dehiscent.

K1247; 1-1050(1400)m; IV-VII *

Dry (*Acacia* or *Acacia-Commiphora*) bushland, also in dwarf desert shrubland; often on limestone or along drainage lines.

Chachanneh (BOR, ORM), Gomor (REN), Lerai, Lmunyimunyi (SAM), Abak/Serman (SOM), Mnjwa (TAI), Eyelel (TUR). Used in boma construction.

19. *Acacia kirkii* Oliv. ssp. *kirkii*

Tree 2-15m high, flat-topped; bark orange-yellow, peeling to show greenish-yellow underbark. Spines in pairs at the nodes, straight, 0.4-8cm long. Leaves with 6-14 pairs of pinnae; leaflets in 7-20 pairs, 2-5 by 0.5-1mm. Flowers in heads, corolla red, stamens white. Fruit brown, straight or nearly so, much constricted between the seeds, often with a small projection above each seed, 3.5-9 by 0.8-2cm, glabrous(?), indehiscent. K46; 1500-1900m; I-IV, VIII-IX *

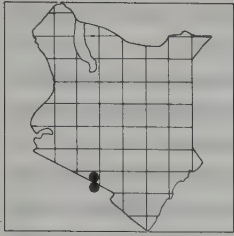
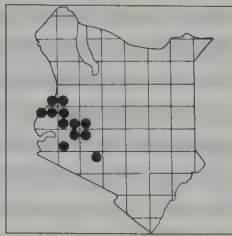
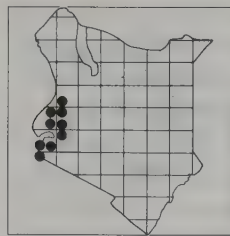
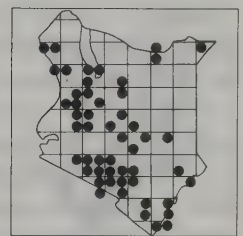
Riverine woodland (always?)

Kimwea (KAM), Chemnyaliliyet (KIP), Ol-Ierai (MAA). Used to make bomas, and for firewood; the bark is used to make tea by the Maasai.

Note: Trapnell 2234, from the Machakos area, is a hybrid of this species with *A. seyal*. It resembles *A. kirkii* but its pods are falcate and almost straight-edged.

20. *Acacia laeta* Benth.

Shrub or small tree to 4(6)m. Prickles in pairs (rarely in 3) just below the nodes, recurved, purpleblack, to

*Acacia laeta**Acacia lahai**Acacia macrothyrsa**Acacia mellifera*

7mm long. Leaves with 2-3 pairs of pinnae; leaflets in 2-5 pairs, 4-15 by 2-7mm. Flowers in spikes 3-5cm long, white. Fruit pale brown, straight, 3-6(8) by 1.7-2.8cm, dehiscent.

K36; 1200-1650m; X *

Dense or open bushland in Kajiado district; recently found in the Tugen Hills by Luke.

Note: I have not seen *A. sp.* A of FTEA, said to be close to this species but occurring at the Coast.

21. *Acacia lahai* Benth.

Tree 3-15m with flat crown; bark brown, rough, with longitudinal scales. Spines in pairs at the nodes, straight, pale, 0.4-7cm long. Leaves with (3)6-15 pairs of pinnae; leaflets in 10-28 pairs, 1.5-4.5 by 0.3-0.8mm. Flowers in spikes 2.5-7cm long, white, cream or pale yellow. Fruit brown, straight or falcate, 4-7 by 1.5-3cm, glabrous, dehiscent.

K23456; 1500-2700m; I-VII

Locally common where upland forest has disappeared, forming dense woodland, or invading grassland.

Red thorn (STAND), Mugaa (KIK), Chepitet/Kerichsani (KIP), Omunyenya (KIS), Mukunga (KIS), Alaktar (LUO), Kumunyenya, Mukunga (LUH), Chebitet (LUM), Oldebese (MAA), Telak (MAR), Chebitet, Kaimetiet (NAN), Kimet, Ematso (SEB), Chessia, Ketetia (TUG). Timber is used for construction work. Marakwet use the bark as an astringent.

22. *Acacia macrothyrsa* Harms

Tree 3-12m; bark rough, fissured. Spines in pairs at the nodes, straight, stout, glossy, 0.3-1.6cm long. Leaves with 9-16(27) pairs of pinnae; leaflets in 12-40 pairs, 6-15 by 1-4mm. Flowers in heads, yellow or orange. Fruit blackish-purple or redbrown, straight, 8-20 by 1.5-2.5cm, glabrous, dehiscent.

K235; 1200-1800m; V, VII-X *

(*Combretum*) wooded grassland.

Sigria/Sugria (LUO), Kumukhondo (LUH).

23. *Acacia mellifera* (Vahl) Benth.

Shrub or tree 1.5-9m; bark brown or light grey, smooth or reticulate. Prickles in pairs just below the nodes, recurved, black, 2.5-6mm long. Leaves with 2-3(4) pairs of pinnae; leaflets in 1-2(3) pairs, 5-22 by 3-16mm. Flowers in spikes 0.5-3.5cm long, white or cream. Fruits pale brown or pale yellow, straight, 2-8 by 1.5-2.8cm, glabrous, dehiscent.

K123467; 1-1800m; II-V, VII-XI

Dry (*Acacia* or *Acacia-Commiphora*) bushland, often common or the dominant species; also in dry woodland, (*Combretum*) wooded grassland or bushed grassland. Often on lava.

Kikwata (SWA), Sabansa-Gurach (BOR), Sa'pans gurraaca (GAB), Sampasa (ILW), Muthiia, Kithiia (KAM), Muthingira (KIK, EMB), Oito-Orok, Oiti (MAA), Belel (MAR), Habakales (ORM), Talamogh, Panyirit (PKT), Bilahen (REN), Iti (SAM), Bil-el, Lanen (SOM), Kezia, Kizia (TAV), Ngororet (TUG), Ebenyo (TUR). Charcoal from this tree is used for smelting iron (Embu); a bark infusion or decoction is used against stomach-ache and malaria (Kam., Maa., Pok.; Tur.). The gum is edible.

24. *Acacia montigena* Brenan & Exell

(*A. monticola* Brenan & Exell)

Climber to 7.5(30)m. Prickles scattered on the internodes, arising from longitudinal bands, recurved, 2-5mm long. Leaves with 7-19 pairs of pinnae, leaflets in 18-40 pairs, 2-5 by 0.5-1.3mm. Flowers in heads, arranged in panicles, white or cream. Fruit dark brown, straight, 8-18 by 3-4.5cm, dehiscent.

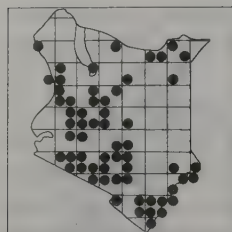
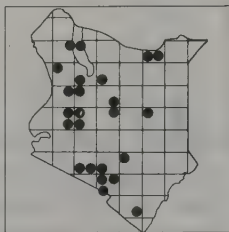
K5; 1500-1600m; III, VI *

Collected twice in Kakamega forest.

Mughobari (LUH). A root infusion is used as a remedy for worms by the Luhya.

25. *Acacia nilotica* (L.) Del.

Tree 1.5-12m with flat or umbrella-shaped crown;

*Acacia nilotica**Acacia nubica*

bark fissured in narrow 'strips', blackish, grey or brown. Spines in pairs at the nodes, straight or nearly so, often deflexed, to 8cm long. Leaves with 2-11 pairs of pinnae; leaflets in 7-25 pairs, 1.5-7 by 0.5-1.5mm. Flowers in heads, yellow or orange. Fruit black or grey, very variable, straight or curved, often nearly cylindrical, 8-17(22) by 1.3-2.2cm, indehiscent.

- *ssp. leucocarpa* Brenan

Young branches and fruits glabrous or nearly so, fruits 1-1.3cm wide.

K7; 1-50m; I-II, IX-XI *

Bushland on sandy soil.

Mtetewa/Mgunga (SWA), Mgundi (DUR).

- *ssp. subalata* (Vatke) Brenan

Young branches and fruits densely pubescent; fruits 1.3-2.2cm wide.

K123467; 1-2300m; I-XII.

Wooded grassland, woodland (often one of the dominants), *Acacia*-grassland, open bushland and clump bushland.

Mgunga (SWA), Mtetewe (BAJ), Burguge (BOR), Chigundigundi (DIG), Mgundi (DUR), Burkuke (GAB), Munga (GIR), Musemei (KAM), Chepitet (KIP), Ol-Kiloriti (MAA), Ngobgwa (MAR), Chalabdo (ORM), Opokwo (PKT), Gilorit, Mirgi (REN), Eldekeci (SAM), Tugerr (SOM), Chebiwo (TUG), Ekapelimen (TUR). A bark infusion or decoction is used by Maasai moran as a stimulant to improve digestion; Turkana and Pokot use the juice of the fruit as an eye medicine. Used for building poles; Giriama use the root for chest medicine.

26. *Acacia nubica* Benth.

Shrub or small tree 1-4.5(6)m, often much spreading; bark greygreen. Branches emit a powerful smell when cut. Spines in pairs at the nodes, straight, 0.4-2cm. Leaves with 2-8 pairs of pinnae; leaflets in 5-16 pairs, 2.5-7 by 0.7-2.5mm. Flowers in heads, white or cream (corolla red). Fruit pale yellow, straight, 4-13 by 1.2-

2cm, margin wing-like and 1-3.5mm wide, dehiscent. K123467; 200-1400m; I, III-IX, XII

Dry *Acacia* bushland, often common or locally dominant, especially where overgrazing takes place, *Acacia* grassland, lava crevices, scrub desert.

Wangi, Wanga (BOR), Waanga (GAB), Ol-Depe (MAA), Lebeiywa (MAR), Wange (ORM), Pelili, Pilil (PKT), Aluia, Dahar, Holieh (REN), Ldepe (SAM), Gummur (SOM), Epetet (TUR). A bark decoction is used as an emetic against malaria and rheumatism by Samburu and Pokot.

27. *Acacia ogadensis* Chiov.

Shrub or tree 1-5m with whippy branches. Prickles in threes, recurved or the laterals straight, 3-10mm. Leaves with 1 pair of pinnae; leaflets in 2-4 pairs, obovate, 5-20 by 3-13mm; rachis with small prickles. Inflorescence spicate, with lilac or red flowers, 4-8cm long. Fruit olive-brown, 5-7 by 1.3-1.9cm, densely puberulous, dehiscent.

K1; 400-500m; *

Once found (Gilbert & Thulin 1353) on limestone slopes with *Acacia-Commiphora* bushland, near Ramu.

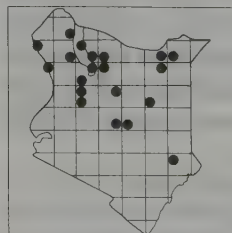
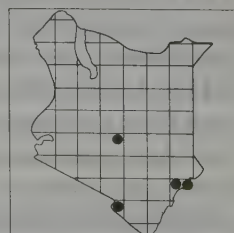
28. *Acacia paolii* Chiov.

(incl. *A. species B* of FTEA)

Shrub or small tree 0.7-4.5m, spreading and with a flat crown, often multi-stemmed from base; bark smooth, dark green(-brown). Often leafless when in flower. Spines in pairs at the nodes, straight, 0.5-5cm long. Leaves with 1-9 pairs of pinnae; leaflets in 7-15 pairs, 2-7 by 0.8-1.8mm. Flowers in heads, white or cream. Fruit red or brown, (somewhat) falcate, base attenuate, 4-13 by 0.6-1cm, densely long-pubescent, dehiscent. K1234; 100-1250m; I, III, VI-VIII *

Dry *Acacia* bushland or dwarf shrub grassland; occasionally common, as near Isiolo.

Chachane (BOR, GAB, ORM), Chyachyaneh (ILW), Gomor (REN), Gammur/Jerin/Jahjahneh (SOM),

*Acacia paolii**Acacia pentagona*

Eyalel/Elyuloit (TUR). Used for making bomas. Turkana use a bark infusion as a remedy for skin diseases. The gum is edible.

Note: Intermediates occur between typical *paolii* and the ssp. *paucijuga* proposed by Brenan in Kew Bulletin 1963: 165. Therefore, I think this subspecies is synonymous with *paolii*.

29. *Acacia pentagona* (Schum. & Thonn.) Hook.f.

Liana, at least to 9m. Prickles scattered over the internodes, arising from longitudinal bands, 2-3mm. Leaves with 8-15 pairs of pinnae; leaflets in 16-36 pairs, 3-7 by 0.7-1.8mm. Flowers white, in panicles of heads. Fruit dark brown, straight, margins thickened, 6.5-16 by 1.8-3.5cm, glabrous, indehiscent.

K47; 1-1200m; *

Evergreen or groundwater forest.

30. *Acacia persiciflora* Pax

Tree 3-12m, sometimes with flat crown; bark rough, dark brown or grey. Prickles (often absent from young branches) few in pairs just below the nodes, recurved, 2-4mm. Leaves with 4-8 pairs of pinnae; leaflets in 11-17 pairs, 3-10 by 0.7-2.5mm. Flowers in spikes 1.5-3.5cm long, pink or white (calyx and corolla red). Fruit pale redbrown, straight or nearly so, 6-15 by 1.5-2.5(3.5)cm, glabrous or sparsely puberulous, dehiscent.

K356; 1400-2100m; I, III, VIII, XII *

(Presumably) scattered tree grassland, wooded grassland.

Ongoriochuma (LUO)

31. *Acacia polyacantha* Willd.

ssp. *campylacantha* (A.Rich.) Brenan

Tree 3.5-18m; bark yellow-brown, scaly or papery. Prickles in pairs just below the nodes (sometimes absent from branchlets), recurved, 2-8(12)mm. Leaves with (6)13-40(60) pairs of pinnae; leaflets in (15)26-

64 pairs, 2-6 by 0.4-0.8mm. Flowers in spikes 5-12.5cm long, white or cream. Fruit brown, straight, 7-18 by 1-2.1cm, glabrous (rarely pubescent), dehiscent. K24567; 200-1800m; I-IV, VI, IX, XI-XII *

Riverine forest or -woodland, (wooded) grassland, often in areas with impeded drainage.

Falcon's Claw Acacia (STAND), Mkengewa (SWA, BAJ), Kivovoa (KAM), Oyongo (LUO). Wood resinous, more durable than that of other Acacias. Gum edible, but inferior to that of *A. senegal*, *A. seyal*, *A. sieberiana*.

32. *Acacia reficiens* Wawra

ssp. *misera* (Vatke) Brenan

Shrub or tree 1-7m, mostly obconical and flat-topped; bark grey, longitudinally fissured. Rarely flowering when leafless. Spines in pairs at the nodes, recurved, 2-6mm long. Leaves with 1-3 pairs of pinnae; leaflets in 5-11 pairs, 2-6 by 0.5-1.3mm. Flowers in heads, white or cream. Fruit brown or red-brown, straight, 2.5-7.5 by 0.6-1(1.5)cm, glabrous or nearly so, dehiscent.

K123467; 50-1450m; VI-IX, XI

Dry *Acacia* bushland, often associated with *Balanites*, *Grewia* or succulent *Euphorbia*; may be locally common.

Sigirso (BOR, GAB), Rhigha (ILW), Righ (ORM, SOM), Anywa/Panyarit (PKT), Khasah (REN), Echorra (SAM), Khansa (SOM), Eregae (TUR).

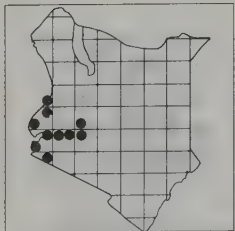
The bark yields a strong fibre. The gum is edible.

33. *Acacia robusta* Burch.

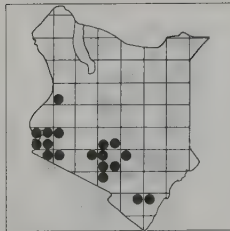
ssp. *usambarensis* (Taub.) Brenan

(*A. clavigera* E. Mey.)

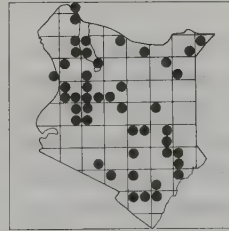
Tree 4.5-20m, with (always?) flat crown and dark greybrown bark, smooth or fissured. Spines in pairs at the nodes, straight or nearly so, up to 9cm on older wood, 3-7 mm on young branches. Leaves with (2)3-



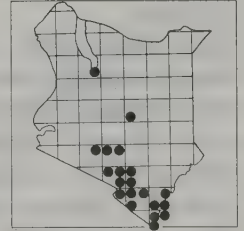
Acacia persiciflora



Acacia polyacantha



Acacia reficiens



Acacia robusta

8(10) pairs of pinnae; leaflets in 9-27 pairs, 3-6.5 by 1-2mm. Flowers in heads, white or cream. Fruit red-brown, falcate, 10-19 by 0.7-1.5cm, glabrous, dehiscent.

K1467; 1-1800m; I, III-V, VII-IX

Riverine bushland/forest/woodland or on badly drained soils. May be locally common.

Mgunga (SWA, GIR), Muuga-fuwe (ILW), Kithi (KAM), Munyagat (ORM). Used in building and for firewood.

34. *Acacia rovumae* Oliv.

Tree 10-15m, with flat crown and grey or dark brown bark, smooth or rough. Spines in pairs just below the nodes, straight or nearly so, 3-6mm. Leaves with 6-9 pairs of pinnae; leaflets in 9-31 pairs, 4-8 by 1.5-2.5mm. Flowers in 6-10cm long spikes, white. Fruit brown, straight or slightly falcate, margin thickened, 7-15 by 1.7-2.5cm, glabrous, indehiscent.

K7; 1-200m; -*

Riverine; also on mangrove margins: Gongoni, Shimoni, along coastal rivers up to Bura and Boni area. Mogogo (ILW), Gaajir (ORM).

35. *Acacia senegal* (L.) Willd. (sensu lato)

(*A. circummarginata* Chiov.)

Shrub or tree 1.2-12m, crown round or flat; bark peeling, yellow-brown, red-brown, or grey-brown. Prickles just below the nodes, mostly in 3 (central one curved downwards, lateral ones curved upwards) or occasionally solitary (and hooked downwards), 3-7mm. Leaves with (2)3-6 pairs of pinnae; leaflets in 8-18 pairs, 1-7 by 0.5-1.8mm. Flowers in spikes 2-10cm long, white or cream. Fruit grey-brown, red-brown, or dark brown, straight, 3-15 by 1.5-3.3cm, pubescent or puberulous, dehiscent.

K123467; 1-1900(2250?)m; I-XII

Acacia or *Acacia-Commiphora* bushland or woodland, often at edges of luggas and often frequent to (locally) dominant. Less often in *Acacia-Combretum* woodland.

Sudan Gum Arabic (STAND), Mgunga (SWA), Mtengewa (BAJ), Dimitu, Idado (BOR), Chikwata (DIG), Iddaado (GAB), Mung'ole, Musemei (KAM), Kiluor, Otiep (LUO), Olderekesi (MAA), Bura-dima, Sobonah (ORM), Chemangayan (PKT), Mirgi (REN), Eldekeci, Lolderikesi (SAM), Adadgeti, Ethad-geri (SOM), Ekunoit (TUR). Maasai use a bark infusion

for diarrhoea or malaria. The gum can be eaten, and is the gum arabic of commerce.

Note: I find it very difficult to separate the varieties supposed to occur in Kenya (var. *senegal*, var. *kerensis*, var. *leiorachis*). For the purpose of this book I prefer to see the species as a single, quite variable one. In the Rift valley there is a form with long, whippy stems resembling *A. thomasii* (differing in the glandular rachis, the wider fruit, and the smaller calyx and corolla); a favourite nesting site for weavers.

36. *Acacia seyal* Del.

Tree or less often shrub 1-12m, crown often flat; bark smooth, yellow-green or orange-red, powdery or papery; inner bark green. Spines in pairs at the nodes, straight, (0.5)1.5-8.5cm; in var. *fistula* often with swollen base. Leaves with (2)3-8 pairs of pinnae; leaflets in (7)11-20 pairs, 3-6 by 0.7-1.5(2)mm. Flowers in heads, yellow. Fruit shiny red-brown, falcate, 7-20 by 0.4-0.7cm, glabrous, dehiscent.

- var. *seyal*: spines not inflated.

K123456; 550-2200m; II-V, VII-XII

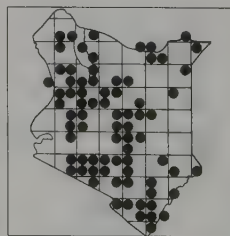
Dry bushland, frequently associated with *Tarchonanthus* and common in many places; also in grassland or woodland (e.g. with *Combretum molle*). Wacho dima (BOR), Kinyua/Kisewa (KAM), Olerai (MAA), Rena (POK), Ekoromait (TUR). Pokot use a root decoction against stomachache. The gum is edible.

- var. *fistula*: some spines with inflated base

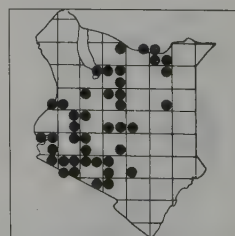
K13456; 200-1750m; I, III-XII

Nearly always on alluvial or black cotton soils, in grassland, woodland, or semi-desert scrub.

White Galled *Acacia*, Whistling Thorn, Shittim Wood (STAND), Mgunga (SWA), Wachu-Adi, Wacho-Dima (BOR), Waac'c'u (GAB), Kinyua, Kisewa (KAM), Mugurt (KIP), Ali (LUO), Oleregat, Ole-Rai (MAA), Reno (MAR), Rena (PKT), Fulai (REN), Lerai (SAM), Fullai, Jikh (SOM), Lelnet (TUG), Ekoromait (TUR).



Acacia senegal



Acacia seyal

The Boran extract a red dye from the bark, which contains tannin; Pokot and Samburu use a root decoction against stomachache; the gum is edible; Maasai use the bark for tea.

37. *Acacia sieberiana* DC.

Tree 3-15m; bark usually grey and rough, sometimes yellow and flaking. Spines in pairs at the nodes, straight, 0.6-12cm. Leaves with 6-23(35) pairs of pinnae; leaflets in 14-52 pairs, 2-6.5 by 0.5-1.5mm. Flowers in heads, white or pale yellow. Fruit shiny brown, straight or slightly falcate, thick, 9-21 by 1.7-3.5cm, glabrous or nearly so, indehiscent.

- var. *sieberiana*: young branches (almost) glabrous. K257; 1-1250m; I-II *

Wooded grassland.

Mgunga kuu (SWA).

- var. *woodii* (Burr Davy) Keay & Brenan [var. *vermoeseni* (De Willd.) Keay & Brenan]: young branches densely hairy; crown very spreading, flat or umbrella-shaped.

K3456; 1150-1950m; I-IV, IX-X *

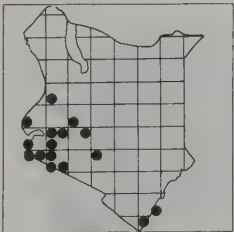
Wooded grassland or clump bush-grassland, occasionally riverine.

Mgunga Kuu (SWA), Eyesura (KIS), Leldet, Seep (KIP), Achara (LUO), Ol-Debesi, Ol-Asiti (MAA), Cherin, Chiak (SOM). Used for making furniture; gum edible, of good quality.

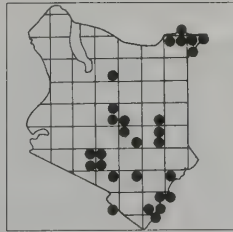
38. *Acacia stuhlmannii* Taub.

Shrub or tree 0.7-6m, often much spreading and flat-topped; bark (reddish) brown, sometimes peeling. Often flowers when leafless. Spines in pairs at the nodes, straight, 0.7-5cm. Leaves with 4-8 pairs of pinnae; leaflets in 7-25 pairs, 2-5.5 by 1-1.5mm. Flowers in heads, pink or white. Fruit reddish brown(?), straight or falcate, 3-11.5 by 1.2-2.5cm, densely clothed with white hairs, indehiscent.

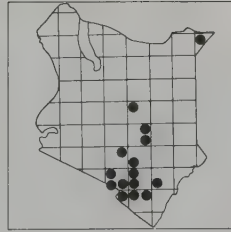
K1467; 1-1600m; I-III, V-IX



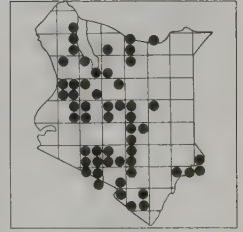
Acacia sieberiana



Acacia stuhlmannii



Acacia thomasii



Acacia tortilis

Open or dense bushland, (bushed) grassland, frequently on badly drained soils; near the coast frequently in or near swamps, said (in FTEA) to occur in mangrove margins.

Fever Tree (STAND), Mgunga (SWA), Chachanneh (BOR), Mwera (TAV), Goomr, Gamar (SOM).

39. *Acacia thomasii* Harms

Shrub or tree to 5m, with a few long whippy branches to 12(20)m on which the flowers are borne; bark chestnut-brown, flaking. Prickles just below the nodes, in threes or rarely solitary, the central one hooked downwards, the laterals curved upwards or nearly straight, 3-7.5mm. Leaves with 1-2(3) pairs of pinnae; leaflets in 7-15 pairs, 3-9 by 1.5-3mm. Flowers in spikes 4-9cm long, white, cream, or pale yellow. Fruit yellow-brown or reddish-brown, straight or nearly so, 4-12 by 1.5-2.3cm, puberulous, dehiscent.

K1467; 350-1200m; III-IX, XI-XII

Acacia or *Acacia-Commiphora* bushland; an uncommon plant occurring in small groups. Endemic to Kenya.

Note: may be confused with the whippy form of *A. senegal* (see p. 264).

40. *Acacia tortilis* (Forssk.) Hayne

Tree 2-18m, occasionally a shrub; crown spreading, flat or umbrella-shaped; bark grey to black, fissured. Spines in pairs at the nodes, of two kinds: straight and long, 3-8cm; and hooked and short, to 7mm. Leaves with 2-10 pairs of pinnae; leaflets in 6-19 pairs, 0.5-3 by 0.5-1mm. Flowers in heads, white or cream. Fruit pale brown, twisted or contorted, 0.6-1.3cm wide, glabrous or pubescent, indehiscent.

- ssp. *raddiana* (Savi) Brenan var. *raddiana* young branches glabrous or nearly so; fruit glabrous and without glands.

K7; 1-50m; II-III, IX *

Bushland or along streams.

Munga, Mgunga (SWA), Dadacha (BOR, ILW), Daddacha (GAB), Dadwota (ILW), Kilaa (KAM), Ol-Gorete, Ol-Tepesi, Ol-Entepesi (MAA), Gudis (young), Dabaso, Dadech (ORM), Ses (PKT), Dahar (REN), Ltepes (SAM), Abak, Kura (SOM), Sietsiet, Sesya (TUG), Ewoi, Etiir (TUR). Wood used for dhow ribs.

- ssp. *spirocarpa* (A.Rich.) Brenan
young branches pubescent; fruit pubescent and glan-
dular.

K123467; 200-1650m; II-XI

Very often along rivers or luggas, but also in dry bushland, *Acacia* grassland, and semi-desert scrub. May be common in places. Can withstand heavy grazing pressure.

Ddacha (BOR), Killa/Moghaa (KAM), Oltepesi/Entepesi (MAA), Ses (PKT), Dahr (REN), Ltepes (SAM), Sesya (TUG), Etir (TUR). The bark produces a good fibre; fruits are eaten by cattle and wild animals; Pokot and Maasai use a bark decoction against stomachache and diarrhoea, and the wood for house building. Hair roots are used in basketry, and for making milk containers. The gum is edible.

Note: Bogdan 4091 and Pole Evans & Erens 1098, with white-hairy on the fruit, are var. *crinita* Chiov.

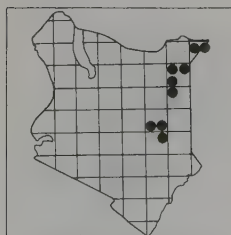
41. *Acacia turnbulliana* Brenan

Shrub 0.4-3m, very flat-topped and spreading; bark peeling on larger branches. Spines in pairs at the nodes, straight, 2-6.5cm. Leaves with 4-14(23) pairs of pinnae; leaflets in 8-30 pairs, 2.5-5 by 0.5-1.3mm. Flowers in heads, white. Fruit reddish-brown, straight or somewhat falcate, (5)10-25 by 0.9-2cm, densely grey-pubescent, dehiscent.

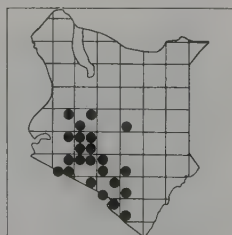
K1; 150-650m; I, V, XII *

Rather open *Acacia-Commiphora* bush- or woodland on deep red sandy soils; once found on limestone, near a large ants nest.

Chachane (BOR), Gomarr/Sarmun jif (SOM).



Acacia turnbulliana



Acacia xanthophloea

42. *Acacia xanthophloea* Benth.

Tree, 4.5-25m, with a flat crown and greyish-yellow or pale yellow bark, smooth and powdery. Spines in pairs at the nodes, straight, 0.5-10cm. Leaves with 3-6(8) pairs of pinnae; leaflets in 8-17 pairs, 2.5-6.5 by 0.7-1.8mm. Flowers in heads, white or purplish. Fruit yellow-brown or brown, straight or slightly curved, constricted between the seeds, 4-13.5 by 0.6-1.4cm, glabrous or nearly so, indehiscent and breaking into segments.

K13467; 700-2100m; VII-XI *

In places with high groundwater; lakesides, river valleys, black cotton soil areas; may be locally common. Fever Tree, Naivasha Thorn (STAND), Hwachio Dima (BOR), Kimwea, Musewa (KAM), Ochymnyaliliet (KIP), Olerai (MAA), Reno (MAR), Murera (MER), Mwelela (TAV). The gum is edible, and a bark decoction is used (MAA, MAR) against indigestion.

43. *Acacia zanzibarica* (S.Moore) Taub.

Shrub or tree 3-7m with flat crown and yellowish bark, powdery with age, and green underbark. Spines in pairs at the nodes, straight or nearly so, 1-7.5cm, quite often inflated at base to 2.5cm across. Leaves with 1-4(6) pairs of pinnae; leaflets in 3-10 pairs, 2-13 by 0.5-6mm. Flowers in heads, bright yellow. Fruit red-brown or blackish-brown, falcate to nearly straight, 5-12 by 0.4-0.7cm, glabrous, dehiscent.

- var. *zanzibarica*

leaflets 2-6mm wide

K17; 1-300m; bushland or bushed grassland, often in areas with a high groundwater such as river valleys.

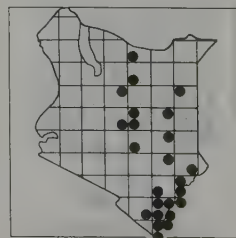
Mpiga mururu (SWA).

- var. *microphylla* Brenan

leaflets 0.5-1.5mm wide

K14; 500-1050m; habitat as var. *zanzibarica*.

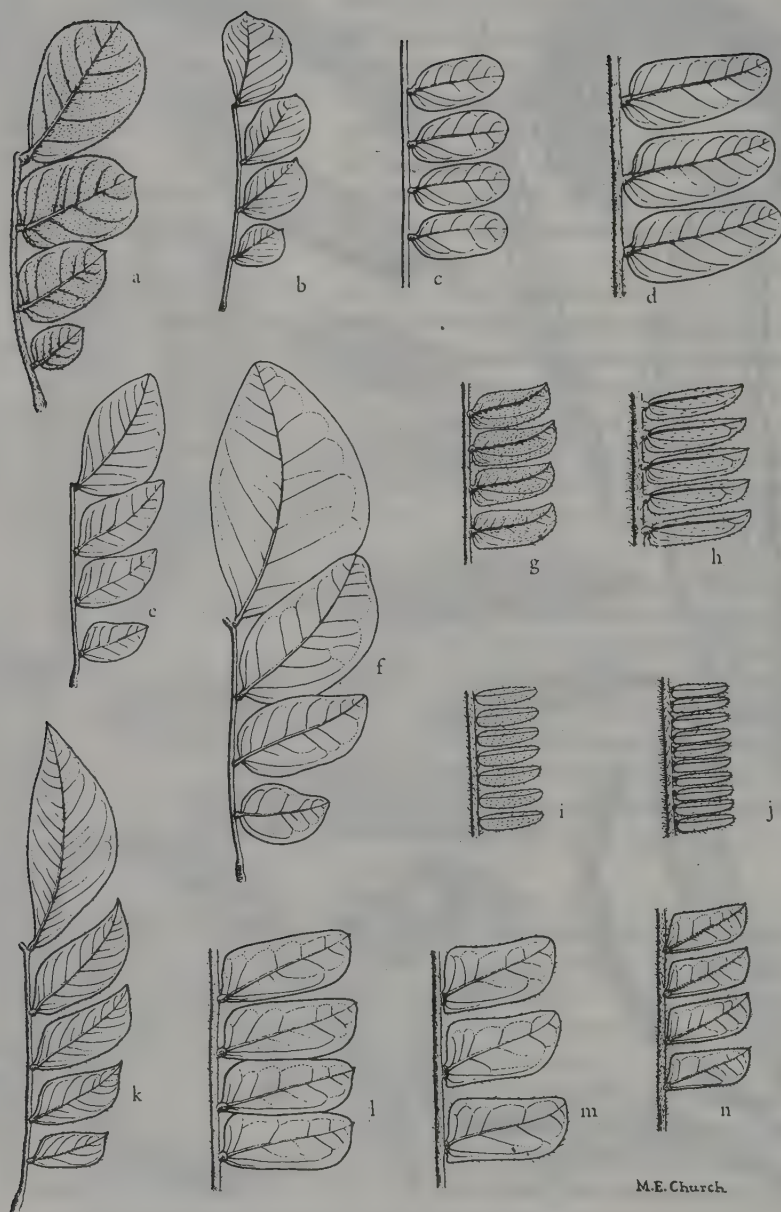
Coastal Whistling Thorn (STAND), Mpiga-Mruru (SWA), Wacho (BOR), Muwachyu (ILW), Musewa, Kisewa (KAM), Waachu (ORM), Fulai, Jikh (SOM).



Acacia zanzibarica

Fruits of *Acacia* species with capitate flowers

a: *A. edgeworthii* T. Anders. from Gillett 13333. b: *A. paolii* Chiov. from Dale 750. c: *A. turnbulliana* Brenan from Gillett 13364. d: *A. sieberiana* DC. var. *vermoeseni* (De Wild.) Keay & Brenan from Coryndon Museum no. 11814. e: *A. stuhlmannii* Taub. from Bally 8740. f: *A. kirkii* Oliv. subsp. *kirkii* var. *intermedia* from Bogdan 1425. g: *A. xanthophloea* Benth. from Bally 15894. h: *A. nubica* Benth. from Dale 3882. i: *A. nilotica* (L.) Willd. ex Del. subsp. *subalata* (Vatke) Brenan from Porter 3742. j: *A. macrothyrsa* Harms from Greenway 2503. k: *A. reficiens* Wawra subsp. *misera* (Vatke) Brenan from Dale 734. l: *A. abyssinica* Hochst. ex Benth. subsp. *calophylla* Brenan from Trapnell 2122. m: *A. etbaica* Schweinf. subsp. *platycarpa* Brenan from Gillett 13641. n: *A. elatior* Brenan subsp. *elatior* Brenan from Greenway 8857. o: *A. seyal* Del. var. *seyal* from Napier 784. p: *A. tortilis* (Forsk.) Hayne subsp. *spirocarpa* (Hochst. ex A. Rich.) Brenan from Lake Rudolph Expedition no. 152. q: *A. clavigera* E. Mey. subsp. *usambarensis* (Taub.) Brenan from Burt 5180. r: *A. zanzibarica* (S. Moore) Taub. from Bogdan 3303. s: *A. drepanolobium* Harms ex Sjöstedt from Napier 1263. t: *A. gerrardii* Benth. var. *gerrardii* from Davidson 522. u: *A. hockii* De Wild. from Gardner 1088. v: *A. brevispica* Harms from Graham 3007. All $\times \frac{1}{2}$.



M.E. Church.

Albizia leaflets

a: *A. versicolor* Welw. ex Oliv. ($\times \frac{1}{2}$) from Koritschoner 1449. b: *A. anthelmintica* Brogn. ($\times \frac{1}{2}$) from Lindeman 676. c: *A. zimmermannii* Harms ($\times 1$) from Greenway 4447. d: *A. coriaria* Welw. ex Oliv. ($\times 1$) from Graham 3042. e: *A. zygia* (DC.) Macbr. ($\times \frac{1}{2}$) from Bancroft FD 1987. f: *A. glaberrima* (Schum. & Thonn.) Benth. var. *glabrescens* ($\times \frac{1}{2}$) from Dale 3540. g: *A. schimperiana* Oliv. var. *schimperiana* ($\times 1$) from Napier 6761. h: *A. harveyi* Fourn. ($\times 2$) from Emson 497. i: *A. amara* (Roxb.) Boiv. subsp. *amara* ($\times 2$) from Dale 703. j: *A. amara* (Roxb.) Boiv. subsp. *sericocephala* (Benth.) Brenan ($\times 2$) from Van Someren 3473B. k: *A. grandibracteata* Taub. ($\times \frac{1}{2}$) from Agric. Dept. 10230. l: *A. petersiana* (Bolle) Oliv. ($\times 1$) from Burt 4471. m: *A. gummifera* (J. F. Gmel.) C.A. Sm. ($\times 1$) from Jackson 336. n: *A. adianthifolia* (Schumach.) W. F. Wight ($\times 1$) from Greenway 2733.

2. ALBIZIA (formerly also spelled as *Albizzia*)

Unarmed trees, deciduous. Leaves bipinnate, usually with glands on the rachis. Flowers in round heads, with long stamens of which the filaments are united in their lower part; petals partly united. Fruit a flat pod.

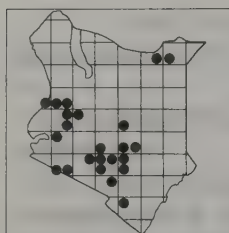
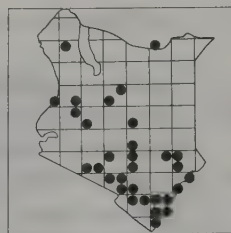
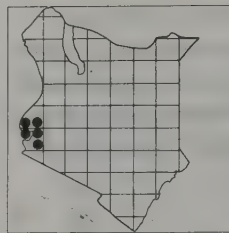
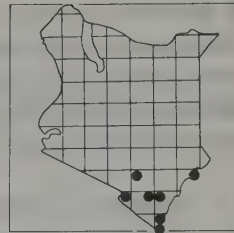
- 1. Leaflets up to 2mm wide 2
- * Leaflets more than 3mm wide 3
- 2. Leaflets asymmetrical, falcate 9. *A. harveyi*
- * Leaflets symmetrical, straight 2. *A. amara*
- 3. Leaflets largest towards the top of the pinna 4
- * Leaflets roughly all the same size 10
- 4. Leaf rachis projecting at the top, forming a bent hook 16
- * Leaf rachis not projecting as a hook 5
- 5. Leaflets densely pubescent; coastal species at altitudes below 400m 17
- * Leaflets glabrous or nearly so 6
- 6. Leaflets of top pinnae in 6-10 pairs 7. *A. grandibracteata x gummifera*
- * Leaflets of top pinnae in 2-6(8) pairs 7
- 7. Staminal tube not or hardly exserted; species of lower (below 950m) altitudes 8
- * Staminal tube exserted for 10-20mm; species of higher (above 1200m) altitudes 9
- 8. Bark not peeling; tree of riverine or coastal forest 5. *A. glaberrima*
- * Bark peeling in papery sheets, tree of rocky sites 13. *A. tanganyicensis*
- 9. Leaflets acute, thinly pubescent beneath 6. *A. grandibracteata*
- * Leaflets obtuse, glabrous except for midrib and margins 16. *A. zygia*
- 10. Leaflets auriculate at proximal side of base 11
- * Leaflets not auriculate 12
- 11. Staminal tube exserted; leaflets glabrous except for midrib and margins 8. *A. gummifera*
- * Staminal tube not exserted; leaflets appressed-pubescent 12. *A. schimperiana*
- 12. Leaflets with very asymmetrical base; staminal tube exserted 13
- * Leaflets with slightly asymmetrical base; staminal tube not exserted 14
- 13. Pinnae of leaves in 5-8 pairs; found at altitudes up to 400m 1. *A. adianthifolia*
- * Pinnae of leaves in 2-5 pairs; found at altitudes above 1200m 10. *A. petersiana*

- 14. Leaflets acute or mucronate at apex 12. *A. schimperiana*
- * Leaflets rounded at apex 15
- 15. Leaflets 13-33 by 5-14mm; Western Kenya, alt. above 1050m 4. *A. coriaria*
- * Leaflets 7-15 by 3-8mm; Eastern Kenya, alt. below 750m 15. *A. zimmermannii*
- 16. Leaflets 1-4 per pinna, glabrous 3. *A. anthelmintica*
- * Leaflets 3-6 per pinna, pubescent 6. *A. grandibracteata*
- 17. Indument rusty; fruit flat 14. *A. versicolor*
- * Indument yellowish; fruit thickened 11. *A. saman*

Note: *A. amara* ssp. *sericocephala* and *A. anthelmintica* often flower when still leafless. The calyx of *A. amara* is 1-2mm long, that of *A. anthelmintica* 3-5mm long.

1. *Albizia adianthifolia* (Schumach.) W.F. Wright
Tree to 9(30)m; crown flat; bark smooth or rough (and then reticulate-scaly). Leaves with 5-8 pairs of pinnae; leaflets of top pinnae in 9-17 pairs, obliquely rhombic, apex obtuse and mucronate, 7-17 by 4-9mm, pubescent. Flowers white, with a staminal tube exserted for 13-20mm. Fruit (pale) brown, 9-19 by 1.9-3.2cm, somewhat pubescent.
K7; 250-400m; I, XII *
Shimba Hills and Mrima Hill, in forest edges, and wooded or bushed grassland.
Mchani-Mbawe (SWA), Mtsani (DIG), Mtsavia (GIR). Timber used.
Note: Elliott 364, from Kikuyu country, is probably mis-labelled.

2. *Albizia amara* (Roxb.) Boiv.
Tree 2-13 m, deciduous, with rough furrowed bark. Pinnae in 4-46 pairs, leaflets in 10-48 pairs, symmetrical, apex obtuse or subacute, 2-6.5 by 0.5-1.8mm, pubescent to glabrescent. Flowers white or yellow, staminal tube not hardly exserted. Fruit brown, 9-28 by 2-5.5cm, puberulous.
- ssp. *amara*
Pinnae in 4-12 pairs, leaflets in 10-29 pairs.
K134, 4/7; 500-1050m, III, VIII *
Acacia-Commiphora bushland, less often in wooded grassland.
Boria (BOR), Mwowa (KAM), Papan (PKT), Gissrip

*Albizia amara**Albizia anthelmintica**Albizia coriaria**Albizia glaberrima*

(SOM), Kotutwo (TUG).

- ssp. *sericocephala* (Benth.) Brenan

Pinnæ in 14-46 pairs, leaflets in 21-48 pairs.

K234567; 800-1800m; I, III-IV, X-XII

Bushland (*Acacia* or *Tarchonanthus* type), (*Combretum*) wooded grassland, woodland or bushed grassland.

Muundua (KAM), Panan (POK), Kotutwo (TUG). Used for firewood; bark used to induce vomiting by the Pokot, who also apply leaves on foot wounds. Wood hard and strong, makes good charcoal and firewood.

3. *Albizia anthelmintica* Brongn.

Shrub or tree 3-7(11)m, deciduous; bark grey, smooth or deeply reticulate. Pinnæ in 1-2(4) pairs, leaflets in 1-4(5) pairs, obliquely obovate or subcircular, apex mucronate, (7)10-40 by (4)6-35mm, usually glabrous. Flowers usually on leafless twigs, white or yellow, staminal tube not or hardly exerted. Fruit glossy pale brown, 7-18 by 1.5-2.8cm, usually glabrous.

K123467; 1-1350m; I-II, IV-XI

Dry bushland (may be common) e.g. on lava or along seasonal rivers; less often in wooded or bushed grassland or woodland; rarely in evergreen coastal bushland.

Mpororo (SWA), Hobocho (BON), Howacho (BOR), Mwowa, Kyalundathi (KAM), Ol-Emugutan (MAA), Kitangwa (MAR), Habachu (ORM), Kamakitan, Mukotonwo (PKT), Olmukutan (SAM), Habasho, Reidep, Reidup (SOM). Bark infusion used as an emetic by the Pokot, against tapeworm and malaria. Wood hard.

4. *Albizia coriaria* Oliv.

Tree 9-18(36?)m, with spreading crown; bark greyblack, rough, flaking. Leaves: pinnæ in (2)3-6 pairs, leaflets in (4)6-11 pairs, elliptic or slightly (ob)ovate, apex rounded, 13-33 by 5-14mm, glabrous

or nearly so. Flowers white, staminal tube not or hardly exerted. Fruit glossy brown or reddish, 10-21 by 3-4cm; glabrous or nearly so.

K5; 1050-1650m; III-IV, X, XII *

(*Combretum*) wooded grassland and riverine or lake-side forest.

Mugavu (common), Ober (LUO), Kumupeli, Omubele (LUH). Heartwood hard and durable.

5. *Albizia glaberrima* (Schumach. & Thonn.) Benth. var. *glabrescens* (Oliv.) Brenan

Tree (9)15-30m, evergreen; bark grey, finely fissured. Leaves: pinnæ in 1-3(4) pairs; leaflets in 3-6(8) pairs, obliquely rhombic-ovate or asymmetrically elliptic, apex obtuse, 18-107 by 9-47mm, glabrous or nearly so. Flowers whitish, staminal tube not or hardly exerted. Fruit brown, 12-26 by 3-4.2cm, puberulous. K47; 1-900m; XI *

Riverine forest or coastal forest.

Nongo (common), Isavi (KAM), Mchani, Mkumba-Mbega (SWA), Mfurugaji (TAV). Used as timber.

6. *Albizia grandibracteata* Taub.

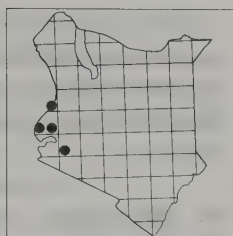
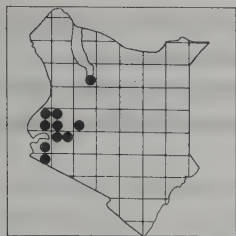
Tree 6-15m; bark grey. Leaves: pinnæ in (1)2-3 pairs, leaflets of top pinnæ in 3-6 pairs, obliquely rhombic or ovate, apex (sub)acute, the top leaflets 29-83 by 15-32mm, somewhat pubescent. Flowers white or pink, staminal tube exerted for 12-20mm. Fruit glossy reddish brown, 6-16.5 by 1.5-3cm, minutely pubescent.

K135; 1200-1800m; II, IV-VIII, XII *

Wet evergreen forest (also in edges or remnants), riverine forest (remnants).

Nongo (STAND), Mgojore, Owak (LUO), Kipsanganyet (NDO), Mukhonzuli, Kumusubiu (LUH), Set, Seyet (TUG).

Note: The K1 record, GP Stevens 7, from a river valley at Mt. Nyiru is correct, although remote from other records.



A. grandibracteata *A. grandibracteata x gummifera*

7. *Albizia grandibracteata x gummifera*

A hybrid, intermediate between the two species.

K35; 1550-2100m; IV-V *

Riverine forest or wet evergreen forest (edge)

8. *Albizia gummifera* (JF Gmel.) C.A. Sm.

var. *gummifera*

Tree 4.5-30m; crown flat; bark smooth, grey (rarely rough). Leaves: pinnae in 5-7(8) pairs, leaflets of top pinnae in 9-16 pairs, obliquely rhombic to rhombic-subfalcate, apex obtuse or acute, 10-25(40) by 4-12(21)mm, pubescent or glabrous. Flowers white; staminal tube exserted for 15-28mm. Fruit glossy (reddish or purplish) brown, 10-21 by 2-3.4cm, glabrous or nearly so.

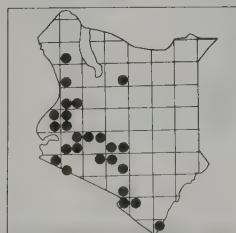
K1234567; 1-2300m; I-V, IX-XII

Dry or wet, lowland or upland forest edges; also riverine forest; may be locally common.

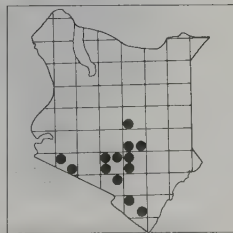
Omulera (STAND), Mcani Mbao (SWA), Motemwelo (ILW), Methia (KAM), Mughonzulu (KAV), Mukurue (KIK, MER), Seet, Seyet (KIP, NAN), Omugonjoro (KIS), Mukhonzi (LUH), Ol-Osepakupes (MAA), Se, Set (MAR, TUG), Sogore, Sagorogurri (SAM), Kiririgwi (TAV), Msarawachi (TAI), Ekokwait (TUR). Used as timber, but not very durable. A bark decoction is used against malaria.

9. *Albizia harveyi* Fourn.

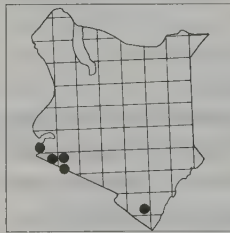
Tree 3-18m, deciduous; crown flat or rounded; bark grey or brownish, vertically fissured. Leaves: pinnae



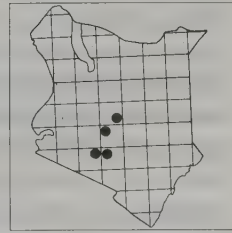
Albizia gummifera



Albizia harveyi



Albizia petersiana



Albizia schimperiana

in 6-20(22) pairs, leaflets in 12-30 pairs, slightly falcate, apex acute, 2-7 by 1-2mm, pubescent (at least below). Flowers white; staminal tube not or hardly exserted. Fruit brown to reddish-purple, 8-18 by 1.8-3.5cm, glabrous or nearly so.

K467; 450-1750m; IV, X-XII *

(*Combretum*) woodland or wooded grassland, open *Acacia* bushland.

Kikanana (KAM), Seet (KIP), Olmurmur (MAA).

Used as firewood and for building poles.

10. *Albizia petersiana* (Bolle) Oliv.

Tree 8-21m, deciduous; bark smooth. Leaves: pinnae in 2-5 pairs, leaflets of top pinnae 5-12 pairs, elliptic or rhombic-obovate, apex obtuse or subacute, 8-23 by 3-13mm, appressed-pubescent or glabrous. Flowers white or pink; staminal tube exserted for 11-30mm. Fruit purple-red, 4-15 by 1.5-3cm, glabrous.

K567; 1200-1850m; I, III, IX *

Riparian or in areas with high groundwater; also in open forest or bushland on (deforested?) slopes; termite mounds.

11. *Albizia saman* (Jacq.) F. Müll.

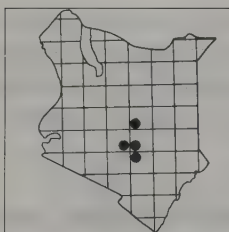
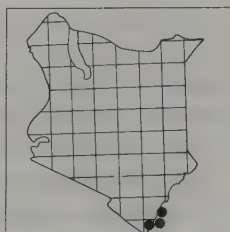
[*Samanea saman* (Jacq.) Merr.]

The "rain tree", widely planted and gone wild along the Tana River. An evergreen tree with a dense crown, resembling *A. versicolor* in foliage and flowers.

K7; I, X, XII *

12. *Albizia schimperiana* Oliv. var. *schimperiana*

Tree 7.5-24m; crown flat or rounded; bark smooth with transverse ridges, or rough, grey or brownish. Leaves: pinnae in 2-7 pairs, leaflets of top pinnae in 6-21 pairs, obliquely oblong or rhombic-oblong, apex acute or mucronate, 7-21 by 3.5-8.5mm, appressed-pubescent beneath. Flowers white or pale yellow; staminal tube not or hardly exserted. Fruit brown, 13-34 by (1.5)2.5-5.9cm, (sparsely) puberulous.

*Albizia tanganyicensis**Albizia versicolor*

K46; 1400-1800m; I, X-XII *

Dry forest (remnants) riverine forest, (?) evergreen bushland.

Mukurue (KIK).

13. *Albizia tanganyicensis* Bak.f.

spp. *adamsoniorum* Brenan

RARE

Tree 4-20m; bark smooth, peeling in large brown papery sheets to reveal greenish-grey inner bark. Leaves: pinnae in 1-2 pairs; leaflets in 2-4 pairs, obliquely obovate or elliptic, apex obtuse or mucronate, 35-80 by 22-50mm, glabrous or nearly so. Flowers yellow-green or white; staminal tube not or hardly exserted. Fruit reddish-brown, 18-30 by 3-6cm, glabrous.

K4; 450-950m; III, V *.

A rare endemic to Central Kenya. In open woodland, always on rock domes or on rocky river banks.

Isari/Kethekajuu (KAM), Mushabe (MER).

14. *Albizia versicolor* Oliv.

Tree 7.5-9(15)m; crown flat; bark rough, reticulated. Leaves: pinnae in 1-4 pairs, leaflets in 2-6 pairs, subcircular or broadly and obliquely obovate, apex rounded or mucronate, 14-63 by 12-49mm, densely pubescent or tomentose. Flowers greenish-yellow or white; staminal tube not or hardly exserted. Fruit reddish-brown, 10-27 by 3.2-6.5cm, glabrous.

K7; 1-300m; I *

Wooded grassland.

Mtanga (common), Mtsani-ndovu, Mchani-Ndovu (SWA, DIG).

15. *Albizia zimmermannii* Harms

Tree 6-18m; crown flat; bark smooth but finely fissured, grey-brown. Leaves: pinnae in 3-6 pairs; leaflets in 8-17 pairs, elliptic, slightly oblique, apex rounded, 7-15 by 3-8mm, appressed-puberulous. Flowers white and pink; staminal tube not or hardly

exserted. Fruit brown or crimson, with raised transverse veins, 12.5-32 by 3.8-7cm, puberulous.

K7; 400-??750m (in other countries to 1150m); III * Riverine forest and (semi-) evergreen bushland: Taita-Voi area.

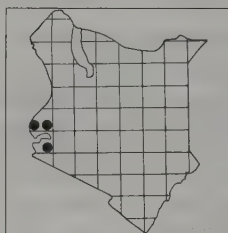
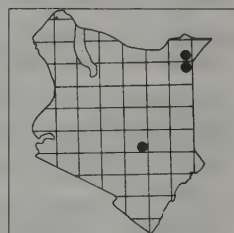
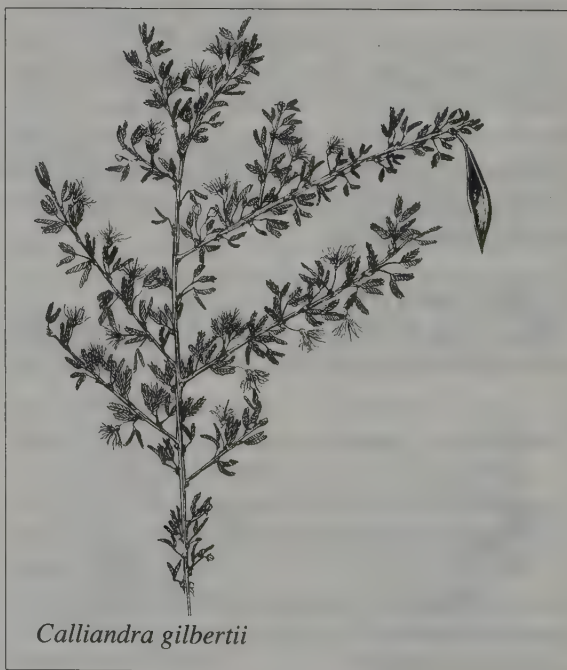
16. *Albizia zygia* (DC.) Macbr.

Tree 9-30m. Leaves: pinnae in 2-3 pairs; leaflets of top pinnae in 2-5 pairs, obliquely rhombic or obovate, apex obtuse (acute), 29-72 by 16-43mm, glabrous or nearly so. Flowers white or pink; staminal tube exserted for 10-18mm. Fruit reddish-brown, 10-18 by 2-4cm, glabrous or nearly so.

K5; 1200-1400m; *

Riverine forest, or woodland.

Nongo (STAND), Oturbam (LUO). Used for furniture.

*Albizia zygia**Calliandra gilbertii**Calliandra gilbertii*

3. CALLIANDRA

Leaves bipinnate. Flowers in few-flowered heads on short-shoots; stamens many, long-exserted. Fruit dehiscent, 2-4 seeded.

Calliandra gilbertii Thulin & Hunde

(*Dichrostachys* sp. B of FTEA)

Shrub 1-2.5m, much-branched and spreading; lateral branches somewhat spiny at ends. Leaves up to 2cm long; pinnae 1 pair; leaflets in 4-9 pairs, up to 3 by 1mm. Flowers creamy white, in 1-4 flowered heads. Fruit brown, narrowly obovate, base attenuate, apex acute, 4-7 by 0.8-1cm, glabrous.

K14; 450-600m; XII *

Bush/woodland with *Commiphora*, *Acacia*, *Delonix*. Rare (also found once in Somalia)

4. DICHROSTACHYS

Shrubs or small trees; spines present, terminating short lateral twigs. Leaves bipinnate; rachis glandular at insertion of pinnae. Inflorescence of axillary spikes. Fruits clustered, flat.

Dichrostachys cinerea (L.) Wight & Arn. Map p.274

Shrub or tree 1-8(12)m, sometimes thicket-forming. Bark rough; spines terminating lateral twigs. Leaves

with 2-19 pairs of pinnae; leaflets in 9-41 pairs, linear or oblong, 1-11 by 0.3-4mm. Inflorescences yellow in the apical (fertile) part, the basal (sterile) part wider and mauve, pink or white; peduncle 1-9cm. Fruits black, twisted or spiral, 2-10 by 0.5-2.6cm.

1. Young branches and peduncles glabrous or sparsely puberulous 2
- * Young branches and peduncles densely pubescent 3
2. Leaflets 1.5-2.5 by 0.4-0.75mm; pinnae in 8-12 pairs (in larger leaves) ssp. *keniensis*
- * Leaflets 1.8-7.5 by 0.6-1.5mm; pinnae in 4-8 pairs ssp. *forbesii*
3. Pinnae in 2-3(4) pairs ssp. *wajirensis*
- * Pinnae in 5 or more pairs 4
4. Leaflets 6-14 by 2-3.5mm; pinnae in 6-11 pairs (in larger leaves) ssp. *nyassana*
- * Leaflets 2-5(9) by 0.7-2mm; pinnae in 7-19 pairs ssp. *africana*

- ssp. *africana* Brenan & Brummitt

1. Leaflets 3-5(9) by 0.8-2mm var. *africana*
- * Leaflets 2-4 by 0.6-1mm 2

2. Leaflets ≈ glossy above when dry var. *tanganyicensis*
- * Leaflets dull above var. *karamojensis*

- ssp. *africana* Brenan & Brummitt var. *africana*

K1234567; 1-1700m; I-III, V, X-XII

In *Combretum* wooded grassland, various types of bushland and grassland, in thickets and in disturbed areas.

Jirime (BON), Muchinkiri (GIR), Olmerumuri/Enjane-Ongware (MAA), Mucamacama (EMB), Tiyyin (PKT):

Used for building, spearshafts, firewood.

- var. *karamojensis* Brenan & Brummitt

K123467; 350-2100m; I-III, V, VII-X, XII *

Bushed grassland or wooded grassland, occasionally riverine.

Nongo (STAND), Mkingiri (SWA), Msativu, Msingoni (BON), Jirime (BOR), Mkingili (GAL, SAN), Muchinjiri (GIR), Muvilisya (KAM), Ruitie (KIK), Okiri (LUO), Ol-Merumuri (MAA), Tiyyin (PKT), Legili (SAM), Ditar (SOM), Dunguu (TAI), Tinet (TUG), Etirak (TUR), Katet (KIP). Used for making cattle bomas.

- var. *tanganyicensis* Brenan & Brummitt

Note: I consider the difference with var. *karamojensis*



Dichrostachys cinerea

to be very slender.

K7; 1-250m; II, XI *

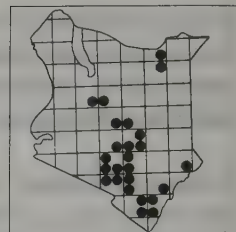
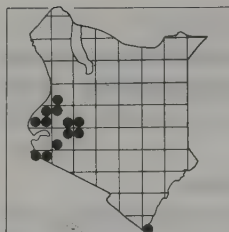
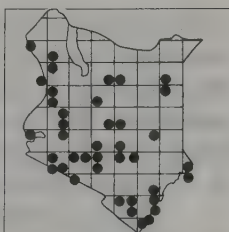
Bushed or wooded grassland.

- ssp. *nyassana* (Taub.)

Brenan

K24; 1500-1600m; I *

Wooded grassland. Tiin (PKT)



Entada abyssinica

Entada leptostachya

- ssp. *forbesii* (Benth.) Brenan & Brummitt

K7; 1-450m; IV-V, XI *

Clump grassland or evergreen coastal bushland.

- ssp. *keniensis* Brenan & Brummitt

K7; 1-50m; II, VIII *

? Coastal bushland and wooded grassland.

Mukingiri (SWA, GIR), Msingino (BON). The spines are said to be poisonous.

- ssp. *wajirensis* Beentje ined. (*D. sp. A* of FTEA)

K1; 200-350m; I, V, XII. Endemic to Kenya.

Acacia-Delonix bushland.

5. ENTADA

Trees, shrubs or lianas, unarmed (in our species). Leaves bipinnate. Inflorescences axillary, of spikes or spiciform racemes. Flowers bisexual or male; stamens 10. Fruit flat, at maturity splitting into 1-seeded, winged segments, which fall off, leaving the empty frame.

1. Leaf-rachis ending in a forked tendril; fruit 40-200cm long 2

- * Leaf-rachis without tendril; fruit up to 40cm long 3

2. Fruit spirally twisted; flowers on pedicels 1-2mm long; Kakamega 2. *E. gigas*

- * Fruit flat; flowers subsessile (pedicel to 0.5mm long); Coastal 4. *E. rheedii*

3. Leaflets 4-12 by 1-3mm; tree of rather wet sites 1. *E. abyssinica*

- * Leaflets 9-34 by 3-12mm; climber of dry bushland 3. *E. leptostachya*

1. *Entada abyssinica* A.Rich.

Tree 3-15m; crown flat or rounded; bark rough or smooth, grey or brown. Leaves: pinnae in 2-20 pairs, leaflets in 22-55 pairs, linear, asymmetrical, 4-12 by 1-3mm, appressed-pubescent. Spikes 1-4 together, 7-16cm long; flowers white or yellow, scented. Fruit brown, straight or nearly so, 15-39 by 5-7.5cm.

K2357; (1--1450-2150m; I, III-V, XII *

Wooded grassland, riverine forest, wet forest edges. Mushembut (LUH, ELG, NAN, SEB), Mashembut, Kakutiet (NAN), Omusarawa (WAT).

2. *Entada gigas* (L.) Faux & Rendle

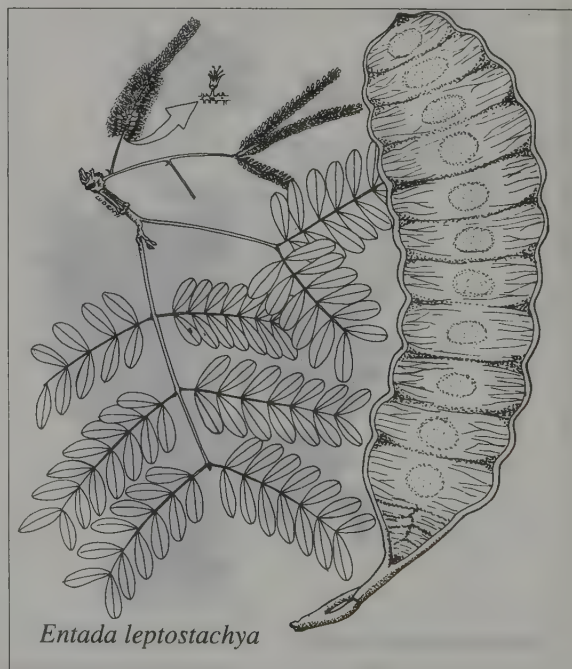
Large liana to 25m long. Leaves: rachis ending in forked tendril; pinnae in (1) 2 pairs; leaflets in 3-4(5) pairs, elliptic or slightly obovate, somewhat asymmetrical, 18-80 by 8-40mm, glabrous or nearly so. Spikes solitary, 8-25cm long; flowers creamy or yellowish. Fruit twisted in a spiral, 40-120 by 7.5-12cm.

K5; 1550-1650m; *

Collected once (Kokwaro 3128) in Kakamega forest; locally common on river banks.

3. *Entada leptostachya* Harms

Climbing shrub to 6m (also reported as a small tree);



Entada leptostachya

bark smooth, grey. Leaves with 2-4 pairs of pinnae, leaflets in 7-10 pairs, narrowly elliptic or slightly obovate, base asymmetric, 9-34 by 3-12mm, puberulous or (sub) glabrous. Spikes 1-3 together, 3-8cm long; flowers yellow (or white?) scented. Fruit brown, straight or slightly curved, 14-32 by 4.3-10cm.

K1467; 100-1350m; II-IV, VII-X

Dry (*Acacia-Commiphora*) bushland or woodland, occasionally on rock. May be locally very common. Hundad (BOR), Mwaitha (KAM), Kobagor (SOM), Mgambari (SWA), Ldalampo (SAM). Bark fibre used for rope; roots are used as remedy for snakebite by the Kamba.

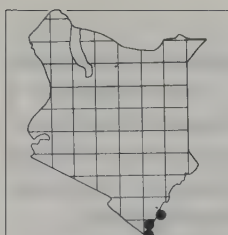
4. *Entada rheedii* Spreng

(*E. pursaetha* DC.)

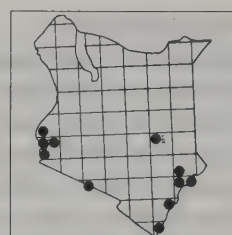
Large liana (? to 50m); trunk irregularly fluted, bark rough, dark brown. Leaves: rachis ending in a forked tendril; pinnae in (1) 2 pairs; leaflets in 3-4(5) pairs, elliptic or obovate, 25-90 by 11-40mm, \approx glabrous. Spikes 7-23cm long; flowers cream or yellow. Fruit brown, straight or slightly curved, 50-200 by 7-15cm. K7; 1-350m; I *

Coastal evergreen forest. One of the most common drift seeds on the Kenyan beaches.

Mufwihi (DIG).



Entada rheedii



Mimosa pigra

6. LEUCAENA

Leucaena latisiliqua (L.) Gillis

[*L. glauca* (L.) Benth.]

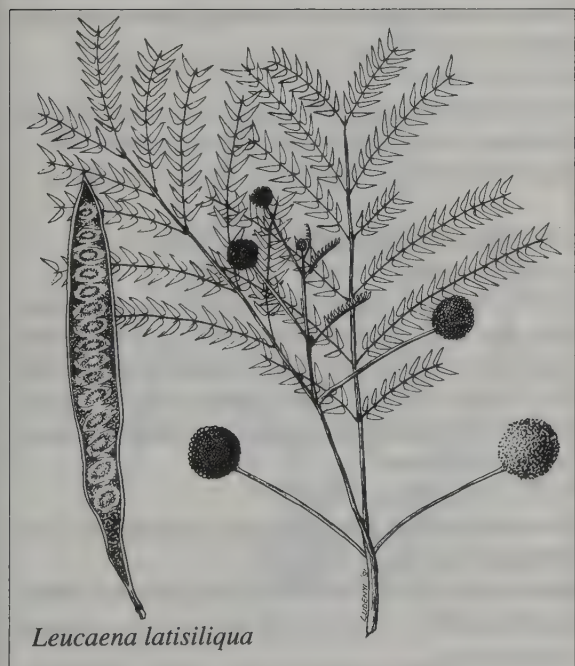
Shrub or tree 0.6-9m. Leaves with 3-7 pairs of pinnae; leaflets in 7-17 pairs, somewhat oblique and elliptic, 7-18 by 1.5-5mm, slightly puberulous. Flowers pale green, in pedunculate round heads, bisexual. Fruits compressed, 8-18 by 1.8-2.1cm.

K7; 1-450m; VII-IX, XI

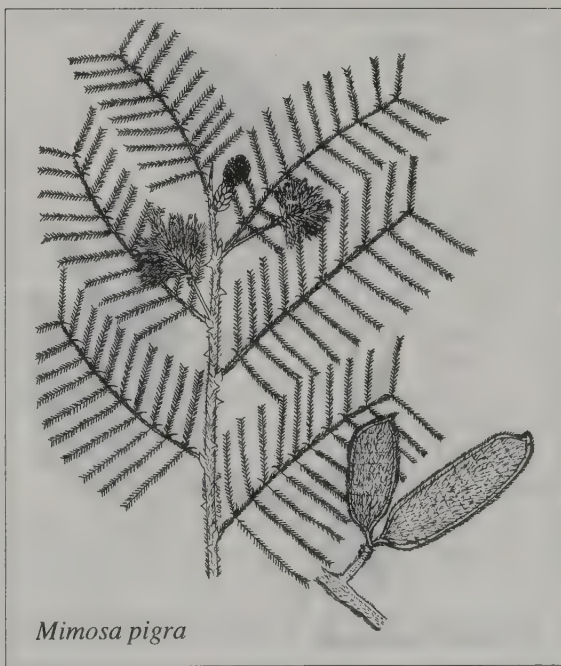
Cultivated but gone wild on the coast.

7. MIMOSA

Herbs or shrubs, usually armed; leaves bipinnate. Inflorescence of subglobose heads, axillary; flowers bisexual or male. Fruit flat, bristly or prickly; segments of fruit falling away leaving an empty frame.



Leucaena latisiliqua



Mimosa pigra

Mimosa pigra L.

Shrub 1-2(4.5)m, sometimes scandent. Stems purplered, with prickles to 7mm. Leaves sensitive; a prickle at each pinnae-pair; pinnae in 6-14 pairs, leaflets in 20-42 pairs, 3-8 by 0.5-1.3mm. Flowers mauve or pink in globose heads about 1 cm across. Fruit brown, 3-8 by 0.9-1.4cm, densely bristly.

K1/7, 567; 1-1350m; II, IV, VII-XII *

Alluvial flats, along rivers and lakes.

Siri-Siri (LUO), Murendazia (GIR), Dalana (ORM).

8. NEWTONIA

Leaves bipinnate; rachis with a gland at each pinnae-pair. Flowers in spikes or spiciform racemes. Fruit straight or curved, flattened, splitting along one side. Seeds winged all around.

1. Leaflets very many, 2-6 by 0.5-1.5mm

1. *N. buchananii*

- * Leaflets in less than 20 pairs per pinnae, more than 1.5mm wide 2

2. Leaflets in 1-3 pairs per pinnae, 8-70 by 5-39mm

4. *N. paucijuga*

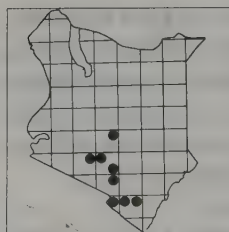
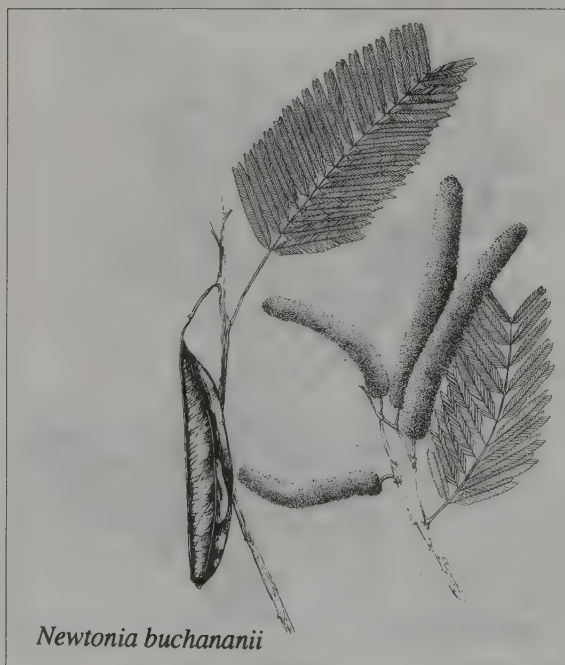
- * Leaflets in more than 5 pairs per pinnae 3

3. Leaflets 3-8mm wide; pinnae in 1-4 pairs

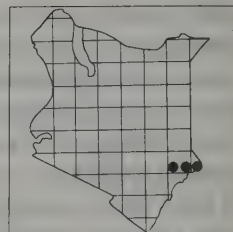
2. *N. erlangeri*

- * Leaflets 1-3.5mm wide; pinnae in (2) 4-7 pairs

3. *N. hildebrandtii*



Newtonia buchananii



Newtonia erlangeri

1. *Newtonia buchananii* (Bak.) Gilb. & Bout.

Tree 15-40m, somewhat buttressed at base; bark smooth, grey. Leaves with 12-23 pairs of pinnae; leaflets in 38-67 pairs, somewhat falcate, 2-6 by 0.5-1.5mm. Spikes 3.5-19cm long; flowers yellowish. Fruit brown, straight, 10-32 by 1.3-2.5cm.

K47; 900-1700m; VII *

Riverine, swamp or mist forest; may be locally common.

Newtonia (STAND), Mukui (KIK, MER), Mseri (TAV), Makuruma, Mofu (TAI). Timber durable in water, used for canoes; also used for furniture and building, but liable to borer attack.

2. *Newtonia erlangeri* (Harms) Brenan

Tree to 16.5m with broad crown; bark pale grey, rough or peeling. Leaves with 1-4 pairs of pinnae; leaflets in 5-12 pairs, elliptic, 7-20 by 3-8mm. Spikes 4.5-10cm, flower colour unknown. Fruit dark brown, straight, 10-25 by 1.5-2.2cm.

K1/7,7; 1-100m; X *

Woodland/bushland (periodically flooded), dry riverine forest. Locally dominant at Boni, Tana R. PR. Tuari (BON), Mukami (PKM). Used for building.

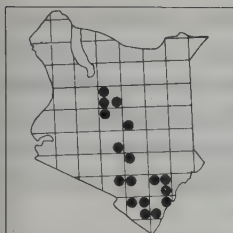
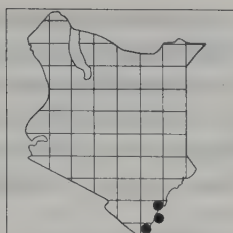
3. *Newtonia hildebrandtii* (Vatke) Torre var. *hildebrandtii*

Tree 5-25m with spreading crown and rough (reticulate) grey bark. Leaves with (2) 4-7 pairs of pinnae; leaflets in 6-19 pairs, narrowly elliptic or linear, 3-11 by 1-3.5cm. Spikes 4-12cm, flowers cream or yellow. Fruit dark (reddish) brown, straight or slightly curved, 9-30 by 1.6-2.6cm.

K147; 100-1000m; I-IV, XII *

Riverine in rather dry areas, also in bushland (near drainage lines?)

Muwwarale (ILW), Mukami (KAM), Mirole (ORM), Lmuki (SAM). Wood hard, red, used by Akamba woodcarvers.

*Newtonia hildebrandtii**Newtonia paucijuga***4. *Newtonia paucijuga* (Harms) Brenan**

Tree 10-35m; bark smooth, light grey. Leaves with 1-2 pairs of pinnae; leaflets in 1-3 pairs, elliptic or obovate, 8-70 by 5-39mm (larger on saplings). Spikes 3-10cm long, flowers white. Fruit (reddish) brown, 23-60 by 2-3.1cm.

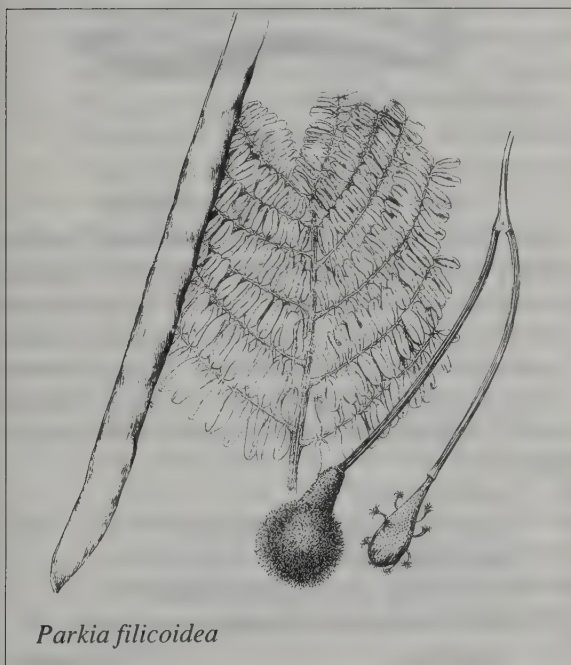
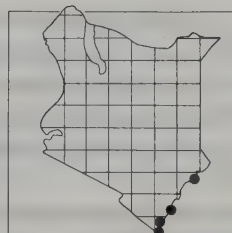
K7; 50-500m; VII, IX, XI *

Wet evergreen forest (fairly common in Shimba Hills), less often in dry evergreen forest.

Mdarika (STAND), Mkunguni, Mpilipili (SWA), Mleha (DIG), Mbagazembe (GIR). Used in boat building (dhows, canoes) by the Digo.

9. PARKIA

Leaves bipinnate. Inflorescence club-shaped, with bisexual flowers at the apex and male or neuter flowers at the base. Fruit linear.

*Parkia filicoidea**Parkia filicoidea****Parkia filicoidea* Oliv.**

Tree 18-30m; crown spreading; bark rough or smooth. Leaves with 4-11 pairs of pinnae; leaflets in 11-17 pairs per pinna, elliptic, base asymmetrical, 12-32 by 5-12mm, puberulous near base. Flowers pink, on pendent, club-shaped heads which are up to 88 by 75mm, on a peduncle 9-35cm long. Fruit chestnut-brown, flattened, 30-60 by 1.5-2.8cm, glabrous or nearly so.

K7; 1-350m; III *

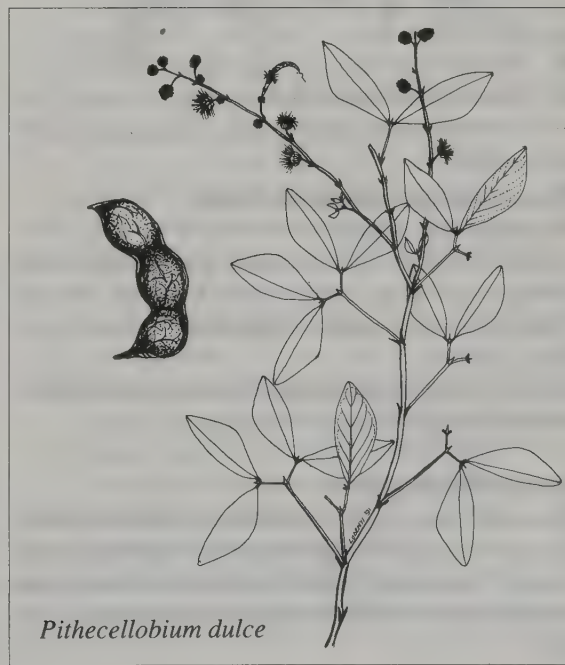
Moist lowland evergreen forest or swamp forest.

Mnienze, Mkunde (SWA), Myenze (DIG). Fruit edible. Bark with tannin, yielding a red dye.

10. PITHECELLOBIUM

***Pithecellobium dulce* (Roxb.) Benth.**

Shrub or tree 4-15 m. Spines in pairs at the nodes, straight, to 12 mm. Pinnae in 1 pair per leaf; leaflets in

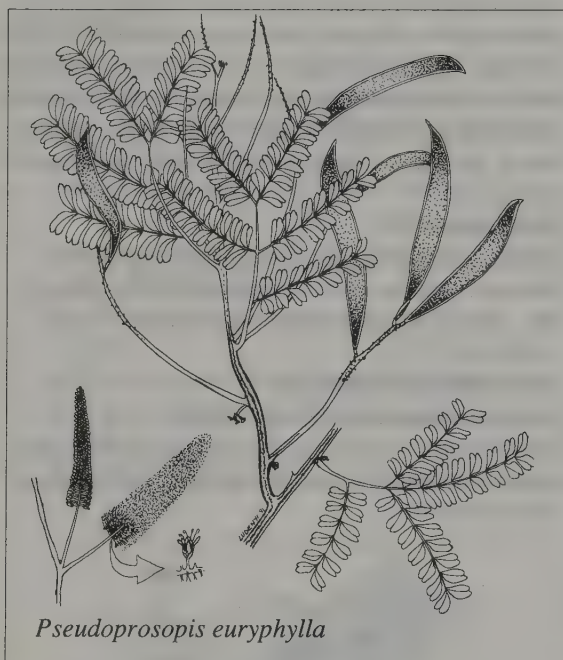
*Pithecellobium dulce*

1 pair per pinna, 0.7-5 by 0.3-2.3 cm. Flowers cream or yellow, in small globose heads. Fruit spirally twisted, splitting into 2 valves.

From tropical America, but planted and gone wild on the Coast and near Thika.

11. PSEUDOPROSOPIS

Unarmed. Leaves bipinnate, with opposite leaflets. Inflorescence spicate. Fruit woody, dehiscent into two recurving valves.



Pseudoprosopis euryphylla Harms
ssp. *puguensis* Brenan

Scandent shrub to 10m. Pinnae in 2-4 pairs; leaflets in 4-9 pairs per pinna, each 7-20 by 6-15mm. Flowers white, in dense racemes to 6.5cm long. Fruit 7-11cm long, blackish.

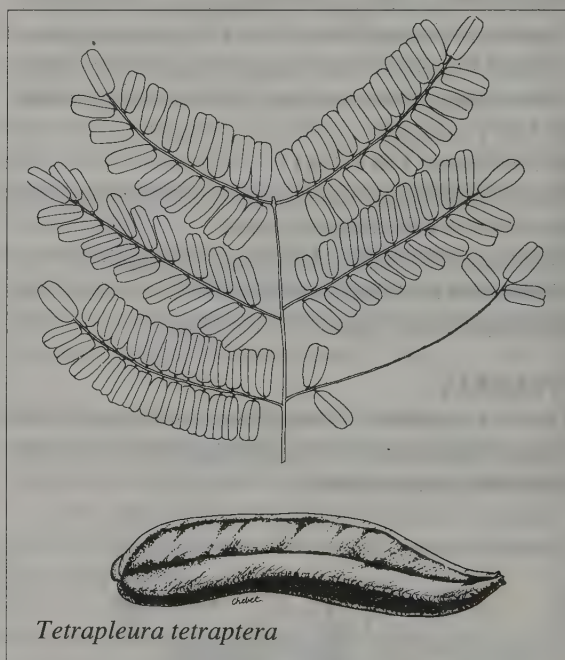
K7, very recently found near Rabai by Luke (before 0700); Mwachi, Gongoni (Luke, pers. comm.)

12. TETRAPLEURA

Unarmed trees. Leaves bipinnate. Inflorescence of axillary racemes. Fruit straight or slightly curved, woody, indehiscent, with a wing-like structure in the middle of each valve, running the whole length of the fruit.

Tetrapleura tetraptera (Schumach. & Thonn.) Taub. Tree 6-30m; bark smooth or rough. Leaves with 5-7(10) pairs of pinnae, opposite or alternate; leaflets in 6-11(13) pairs, elliptic, 6.5-21 by 5.5-13mm, puberulous beneath. Flowers yellowish or pinkish, in 4-14cm long racemes. Fruit glossy dark brown, 12-23 by 3.5-6cm.

K7; Buda forest.



148. PAPILIONACEAE

Trees, shrubs, lianas or herbs, usually unarmed. Leaves usually compound (3-foliolate or pinnate); stipules present, stipels often present. Flowers in racemes or panicles; calyx tubular, 5-toothed or 2-lipped; corolla zygomorphic, composed of standard, 2 wings, and two cohering petals forming the keel (see ill.); stamens usually 10, usually with 9 united ones. Fruit a pod or legume.

- | | |
|--|----|
| 1. Leaves present | 2 |
| * Flowers present, but no leaves | 44 |
| 2. Leaves with one leaflet | 3 |
| * Leaves with more than one leaflet | 4 |
| 3. Petiole pulvinate (thickened at both ends); leaf glabrous | |

6. *Baphia*

- * Petiole not pulvinate; leaf velvety hairy **15. *Desmodium***
- 4. Leaflets 3 per leaf (and lower two opposite) **5**
- * Leaflets more than 3 per leaf (or lower two alternate) **22**
- 5. Leaves digitately 3-foliolate **6**



5a



5b

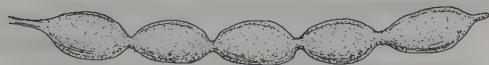
- * Leaves pinnately 3-foliolate **11**
- 6. Leaflets glandular **7**
- * Leaflets not glandular; flowers yellow **8**
- 7. Flowers yellow-white; fruit inflated; petiole not pulvinate **19. *Flemingia***
- * Flowers blue; fruit flat; petiole pulvinate (thickened at both ends) **29. *Psoralea***
- 8. Leaflets less than 9 by 4mm **9**
- * Leaflets larger **10**
- 9. Corolla about 8mm long; fruit flat, rough hairy **2. *Adenocarpus***
- * Corolla more than 11mm long; fruit inflated, glabrous **12. *Crotalaria***
- 10. Calyx 2-lipped, the lower lip 3-fid and much larger; fruit flat **5. *Argyrolobium***
- * Calyx 5-lobed; fruit inflated **12. *Crotalaria***
- 11. Trees with spiny trunk and branches; stipels glandular; flowers red **18. *Erythrina***
- * Small trees, shrubs or lianas, unarmed; stipels not glandular **12**
- 12. Plant with biramous hairs(see ill.); corolla 4-5mm long; fruit 1-2mm across **20. *Indigofera***



- * Plant often with simple hairs; corolla more than 6mm long; fruit more than 3mm across **13**
- 13. Leaflets glandular beneath; flowers yellowish with red veins; fruit either glandular or with persistent flower **30. *Rhynchosia***
- * Leaflets not glandular; flowers different; fruit different **14**

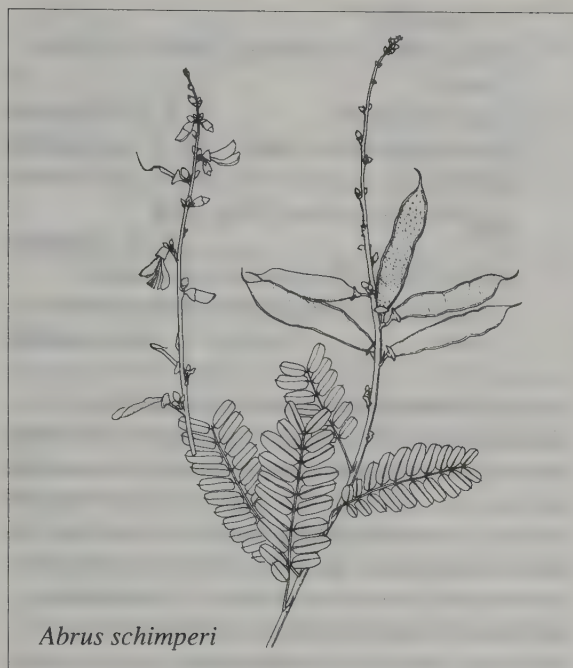
- 14. Inflorescence hanging, more than 3cm long; corolla more than 25mm long **15**
- * Inflorescence erect or spreading; corolla usually less than 25mm long **16**
- 15. Corolla standard larger than wings and keel; fruit without stinging hairs **9. *Canavalia***
- * Corolla standard smaller than wings and keel; fruit with stinging hairs **24. *Mucuna***
- 16. Inflorescence a (sub)sessile umbel; fruit constricted between seeds **15. *Desmodium***
- * Inflorescence a fascicle or (pseudo)raceme; fruit not constricted **17**
- 17. Corolla 6-8mm long; fruit straight, 3-4mm wide **28. *Pseudarthria***
- * Corolla more than 10mm long; fruit (slightly) curved or more than 5mm wide **18**
- 18. Leaflets velvety hairy **17. *Dolichos***
- * Leaflets glabrous or almost so **19**
- 19. Leaflets with pulvinus (stalk thickened) **20**
- * Leaflets without pulvinus **21**
- 20. Leaflets 5-11 by 2.5-6.5cm; river delta's **14. *Derris***
- * Leaflets 0.5-5 by 0.5-2.5cm; dry bushland **22. *Lonchocarpus***
- 21. Roots normal; inflorescence 5-12cm long; fruit 3-4.2 by 1-1.7cm **33. *Spathionema***
- * Plant with enormous root-tuber; inflorescence 13-66cm long; fruit 4.5-6 by 0.5-1cm **35. *Vatovaea***
- 22. Leaves paripinnate (opposite end leaflets) **23**
- * Leaves imparipinnate (single end leaflet) **26**
- 23. Leaflets alternate; stems glandular-hairy **21. *Kotschya***
- * Leaflets opposite; stems not glandular **24**
- 24. Leaf-rachis protruding slightly beyond last pair of leaflets; flowers and fruits (sub-)sessile **1. *Abrus***
- * Leaf-rachis not protruding; flowers and fruits pedicellate **25**
- 25. Calyx 2-lipped; fruits jointed, flat, indehiscent **3. *Aeschynomene***
- * Calyx 5-toothed; fruits not jointed, cylindrical or square in section, dehiscent **31. *Sesbania***
- 26. Most leaflets alternate **27**
- * Leaflets opposite or nearly so **31**
- 27. Leaflets 20-50; petals all similar; *Juniperus* forest margins above 900m; northern Kenya **7. *Cadia***

- * Leaflets less than 20, or in drier areas; petals dissimilar 28
- 28. Plants with glandular hairs which turn warty on older branches 26. *Ormocarpum*
- * Plants not glandular 29
- 29. Inflorescence on old wood; fruit torulose (see ill.) 4. *Angylocalyx*



- * Inflorescence among the leaves; fruit flat 30
- 30. Corolla 12-22mm long; petiolules wrinkled; fruit dehiscent, markedly asymmetric 11. *Craibia*
- * Corolla 4-9mm long; petiolules not wrinkled; fruit indehiscent, asymmetric 13. *Dalbergia*
- 31. Leaves glandular-punctate 27. *Platycelyphium*
- * Leaves not glandular 32
- 32. Shrubs of sandy seashore; all parts densely hairy; flowers yellow; fruits constricted between seeds 32. *Sophora*
- * Plants of different habit and habitat 33
- 33. Petals equal 34
- * Petals (wings, keel, standard) unequal 35
- 34. Leaflets 10-30; upland forest edge plants 7. *Cadia*
- * Leaflets 7-11; dry bushland plants with persistent stipule-bases 16. *Dicraeopetalum*
- 35. Inflorescence from knobs on old wood; fruits torulose (see ill. 27a) 4. *Angylocalyx*
- * Inflorescence from among the leaves on young branches; fruit not torulose 36
- 36. Hairs biramous (see ill. 12a); corolla pink or red; fruit cylindrical or square in section, less than 5mm wide 20. *Indigofera*
- * Hairs simple; corolla variously coloured; fruit more or less flat, or inflated 37
- 37. Flowers 2-3 together, dark reddbrown; fruit an inflated, papery bladder 10. *Colutea*
- * Flowers in inflorescences (more than 3 flowers); fruit more or less flat, not inflated 38
- 38. Standard of flower densely hairy outside 39
- * Standard of flower glabrous or nearly so 41
- 39. Leaf-rachis with thickening at base; stipels present; leaflets 1.5-4cm wide; fruit more or less woody 23. *Millettia*

- * Leaf rachis not thickened at base; stipels absent; leaflets less than 2cm wide; fruit not woody 40
- 40. Leaflets usually widest below the middle; flowers blue or purple; fruit indehiscent 25. *Mundulea*
- * Leaflets usually widest above the middle; flowers reddish-purple or white; fruit dehiscent 34. *Tephrosia*
- 41. Liana with 3-5 leaflets; fruit 2.5-4.5cm long; river deltas 14. *Derris*
- * Trees or shrubs with more than 7 leaflets (or dry bushland species) 42
- 42. Leaflets 3-11; flowers mauve-purple 22. *Lonchocarpus*
- * Leaflets 11-30; flowers white or yellow 43
- 43. Flowers yellow; leaflets 10-30; inland species, above 1000m 8. *Calpurnea*
- * Flowers white; leaflets 11-17; Shimba Hills 36. *Xeroderris*
- 44. Flowers red; trees with spines 18. *Erythrina*
- * Flowers white, blue or purplish; unarmed plants (except *Dalbergia*) 45
- 45. Flowers white or cream 46
- * Flowers blue, mauve, or purplish 47
- 46. Petals 4-8mm long 13. *Dalbergia*
- * Petals 17-30mm long 33. *Spathionema*
- 47. Tree; flowers in branched panicles; corolla 9-12mm long 22. *Lonchocarpus*
- * Flowers on unbranched (pseudo-) racemes; if trees, then corolla more than 15mm long 48
- 48. Trees of dry bushland; old bark papery and peeling 27. *Platycelyphium*
- * Shrubs or climbers, or trees of moist forests 49
- 49. Corolla standard silky-hairy outside; calyx-lobes less than 1mm long 23. *Millettia*
- * Corolla standard glabrous; calyx-lobes more than 1.5mm long 50
- 50. Inflorescence 7-45cm long, on a 6-21cm long peduncle 35. *Vatovaea*
- * Inflorescence to 10cm long, on a peduncle to 2cm long 51
- 51. Bracteoles persistent just below the flower, 1.5-4mm long; calyx pubescent 17. *Dolichos*
- * Bracteoles caducous, 1mm long; calyx glabrous or sparsely hairy 33. *Spathionema*



1. ABRUS

Leaves paripinnate; stipules small, stipels minute; leaflets numerous, opposite, with rachis protruding beyond last pair. Flowers small. Fruit linear or oblong, septate.

- | | |
|--|--------------------------|
| 1. Leaflets pubescent above | 1. <i>A. canescens</i> |
| * Leaflets (almost) glabrous above | 2 |
| 2. Seeds red and black; inflorescence dense, 2-7cm long; calyx denticulate | 2. <i>A. precatorius</i> |
| * Seeds brown; inflorescence lax, 13-30cm long; calyx without teeth | 3. <i>A. schimperi</i> |

1. *Abrus canescens* Bak.

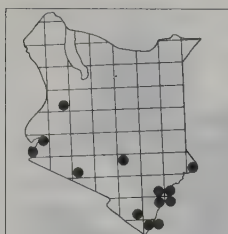
Shrub or climber to 3m. Leaves 20-28-foliolate; leaflets 10-20 by 2-7mm, densely pubescent. Flowers dark red or purple, sessile in terminal whorls; corolla 8-15mm long. Fruits oblong and flat, 4-5.5 by 0.8-1.2cm, pubescent; seeds mottled brown.

K5; about 1200m; VIII *

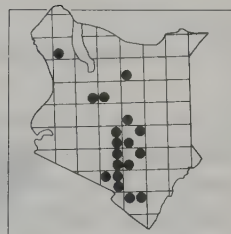
Collected twice, in Busia and Ukwala. Usually found in (wooded) grassland.

2. *Abrus precatorius* L. ssp. *africana* Verdc.

Climber to 5m. Leaves 16-34-foliolate; leaflets 6-27 by 3-10mm, sparsely puberulous/pubescent beneath. Flowers white, pink or pale purple, subsessile in termi-



Abrus precatorius



Abrus schimperi

nal inflorescences 2-7cm long; corolla 9-15mm long. Fruits oblong, somewhat swollen, with a beak, 2-4 by 1-1.5cm, pubescent, smooth or warty. Seeds bright red and black.

K34567; 1-1550m; III, V, VIII, X *

Rocky bushland, bushed grassland, woodland, secondary bushland.

Ban-yorboi (BON), Mwangala-nyuchi (DIG), Mtururi (GIR), Nanaidho (ILW), Ombulu (LUO), Umu-shimpirea (ORM). Leaf decoction is emetic; a root decoction is used against gonorrhoea by the Boni.

3. *Abrus schimperi* Bak. ssp. *africana* (Vatke) Verdc.

(Climbing) shrub or small tree 1-3(6)m. Leaves 14-20-foliolate; leaflets 6-33 by 4-14mm, appressed puberulous beneath. Flowers yellow, pink, blue or purple, with a paler standard, subsessile in upper axils and terminal, whole inflorescence 13-30cm long; corolla 11-14mm long. Fruit oblong, flat, with a beak, 5-7.5 by 0.7-1.2cm, pubescent and warty. Seeds mottled brown.

K12467; 200-1650 (2100??)m; II-VI, XI-XII

Rocky (*Acacia-Commiphora*) bushland or woodland. Wori-Gidda (BOR), Worjidda (GAB), Muginyie (MER). Twigs used as a toothbrush; wood used for building poles.

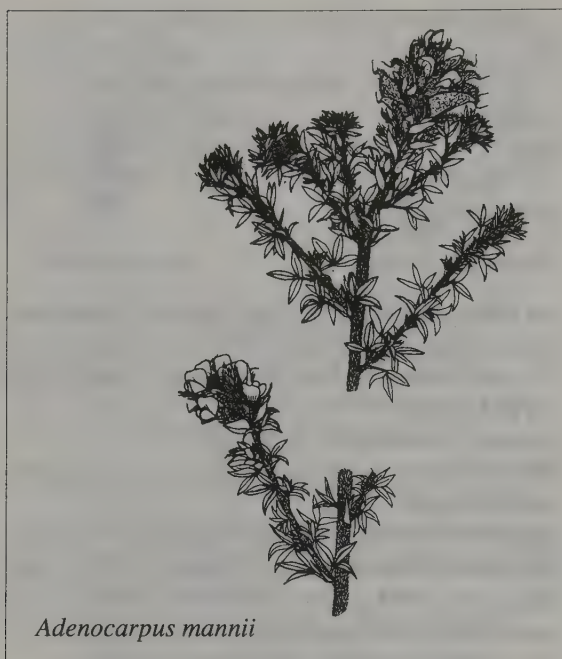
2. ADENOCARPUS

Leaves digitately 3-foliolate; stipules absent or caducous. Inflorescence terminal, racemose. Calyx 2-lipped. Fruit compressed.

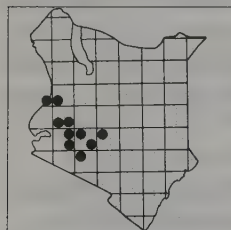
Adenocarpus mannii (Hook.f.) Hook.f.

Shrub 0.3-3 (4.5)m. Leaves 3-foliolate; leaflets subequal, 3-9 by 1-3.5mm, densely pilose beneath. Flowers yellow, in dense inflorescences 2-6cm long; corolla about 8mm long. Fruit oblong, with a short beak, 18-25 by 5-7mm, rough hairy and sticky-glandular.

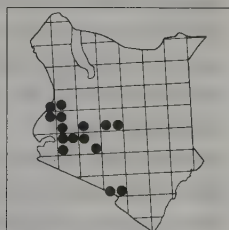
K2346; (1800)2400-3500m; I-III, V-XII



(Bushed) grassland, riversides, also in heath and bamboo zones or in forest margins.
Olonthwalan (MAA), Burguriet (KIP).



Adenocarpus mannii



Aeschynomene abyssinica

3. AESCHYNOMENE

Leaves alternate or subfasciculate on short lateral branches, paripinnate; stipules present but often caducous; stipels absent. Fruit jointed, indehiscent.

1. Stems spiny; fruit spirally twisted

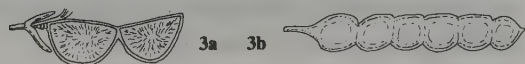
3. *A. elaphroxylon*

- * Stems unarmed; fruit not twisted 2

2. Leaflets 4-12mm wide, toothed and ciliate at margin 5. *A. pfundii*

- * Leaflets 0.5-4.5mm wide 3

3. Fruits articulate, up to 2cm long, corolla 7-

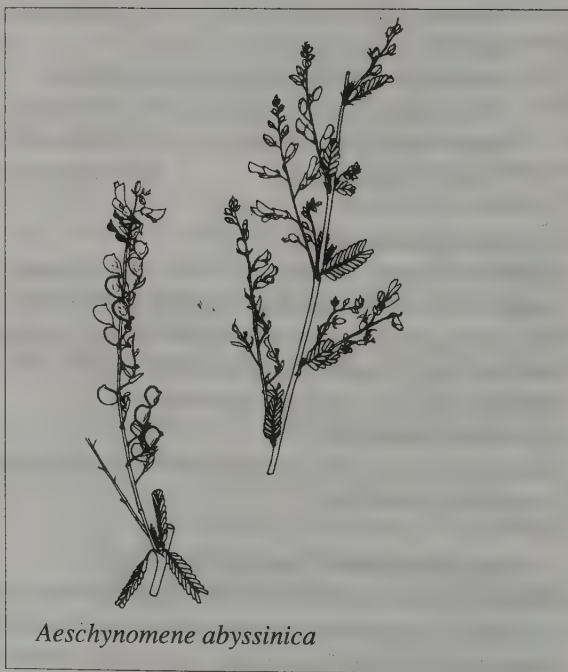


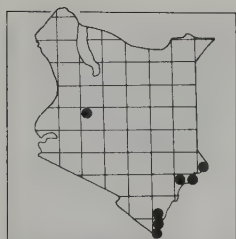
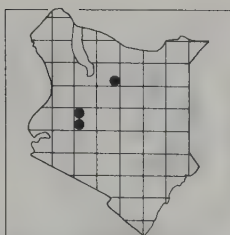
- 13mm long 4
* Fruits linear, 3-11cm long, corolla 13-33mm long 5
4. Leaflets glabrous 1. *A. abyssinica*
* Leaflets glandular-ciliate 4. *A. mimosifolia*
5. Inflorescence usually 1-flowered; calyx sepals entire; fruit less than 7mm wide
6. *A. schimperi*
* Inflorescence 2-8 flowered; calyx sepals unequal, one being 3-lobed; fruit 7-10mm wide
2. *A. cristata*

1. *Aeschynomene abyssinica* (A.Rich.) Vatke

Woody herb or shrub 0.6-2.5m. Leaves 10-30-foliate; leaflets 2-12 by 0.5-3mm, glabrous. Flowers pale yellow, with reddish-brown veins, in several-flowered axillary or terminal inflorescences to 15cm long; corolla to 13mm long. Fruits of 1-2 articles joined by a narrow neck, articles semicircular, 5-9mm across. K23456; (1450)1650-2400m; II-VIII, X-XII (Swampy) grassland, clump/scattered tree grassland, forest margins.

Mushugushugu (EMB), Koibeyot (KIP), Shiyeyu (LUH).



*Aeschynomene cristata**Aeschynomene pfundii***2. *Aeschynomene cristata* Vatke**var. *pubescens* J. Léonard

Woody herb or shrub 1-4m. Leaves 40-60-foliolate; leaflets 6-22 by 1-4.5mm, glabrous except for margins. Flowers golden yellow, in few-flowered axillary inflorescences; corolla 18-33mm long. Fruits linear, 5-11 by 0.7-1cm, flat.

K37; 1-1000m; I, III, VI-XII *

Lake margins, edges of (seasonal) ponds and swamps, river oxbows.

Used in raft and canoe construction; woody very light.

3. *Aeschynomene elaphroxylon* (Guill. & Perr.) Taub.

Shrub or tree to 9m. Stems swollen, spiny; spines to 15mm. Leaves 20-40-foliolate; leaflets 8-27 by 4-10mm, sparsely pubescent beneath. Flowers yellow, in few-flowered axillary inflorescences; corolla 3-5cm long. Fruit spirally contorted, 10-14 by 0.7-0.9cm, densely hairy.

K5; 1330m; III, VII, XI-XII *

Shores of lake Victoria; may grow in the water.

Ambatch (STAND), Ambach, Umburu (LUO). Used in building rafts and for fishing floats; wood very light.

4. *Aeschynomene mimosifolia* Vatke

Woody herb 0.5-2.5m. Leaves fasciculate, 8-34-foliolate; leaflets 1-5 by 0.5-1.5mm, glabrous but glandular-ciliate. Flowers yellow, in axillary inflorescences to 10cm long; corolla 7-9mm long. Fruit with 1-2 semicircular articles, each 4.5-9mm across.

K4; collected twice at Embembe and Kitui, before 1932. Woodland.

5. *Aeschynomene pfundii* Taub.

Shrub or small tree (1-4.5m?) with swollen stem. Leaves 16-32-foliolate; leaflets 10-35 by 4-12mm, ciliate-serrate at margins. Flowers orange, in few-flowered axillary inflorescences; corolla 2-4cm long. Fruit elliptic, 3-5 by 1-2cm, densely hairy.

K13; 900-1600m; IX, XII*

Lake margins, often in up to 1m deep water.

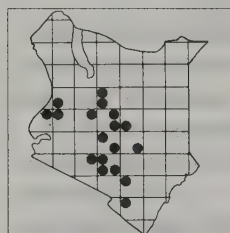
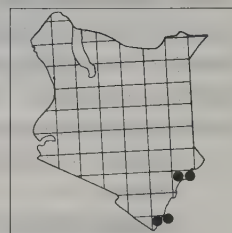
6. *Aeschynomene schimperi* A.Rich.

Woody herb or shrub 0.5-4m. Leaves sometimes sensitive, 18-68-foliolate; leaflets 2-12 by 1-2.5mm, glabrous or ciliate. Flowers orange-yellow with greenish keel (speckled redbrown), solitary or sometimes up to 4 together, axillary; corolla 1.3-3.3cm long. Fruit linear, 3-10 by 0.4-0.7cm, flat.

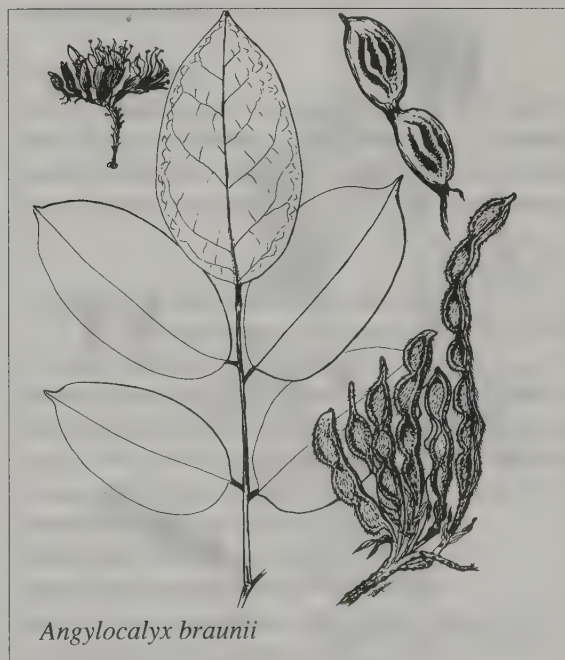
K1347; 500-2050m; I-II, IV-XII

Riverine, in swamps, in rocky pools; often standing in water.

Lukhuli (LUH), Ol-Legilowai (MAA), Koibeyot (NAN).

*Aeschynomene schimperi**Angylocalyx braunii***4. *ANGYLOCALYX***

Leaves imparipinnate; stipules small, stipels absent;

*Angylocalyx braunii*

leaflets alternate or subopposite. Inflorescence a raceme, on old wood. Fruit torulose.

Angylocalyx braunii Harms

Tree or liana 3-15m; bark greenish-grey or brown, smooth but for some knobs (old flowerknobs). Leaves 3-7 foliolate; leaflets with pulvinus, ovate or elliptic, base cuneate or rounded, apex acuminate, 6-18 by 3-8cm, glabrous; terminal leaflet the largest. Flowers cream or pink, in 3-10cm long racemes from old wood; corolla 14-18mm long. Fruit velvety brown, constricted between the seeds, 10-20 by 0.7-1.5cm.

K7; 1-400m; I-II, X *

Riverine forest or evergreen/semi-deciduous forest.

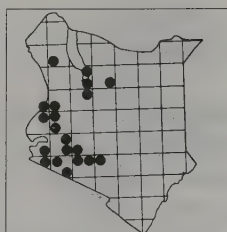
5. ARGYROLOBIUM

Leaves digitately 3-foliolate; stipules present, stipels absent. Flowers in terminal or leaf-opposed, (subumbelliform) racemes. Anthers alternately long and short. Fruit linear-oblong, compressed.

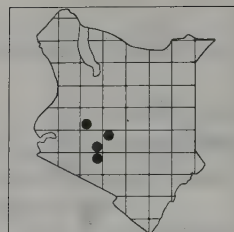
1. Stipules 5-12 by 2-6mm, free for most of their length 1. *A. fischeri*

- * Stipules (10)14-18 by 6-8mm, on the leaf-opposed side united for most of their length

2. *A. friesianum*



Argyrolobium fischeri



Argyrolobium friesianum

1. *Argyrolobium fischeri* Taub.

Woody herb or shrub 0.3-2m. Stems densely hairy. Leaflets elliptic, 2-6 by 1-2.5cm, densely hairy and sometimes silvery beneath. Flowers yellow to orange-yellow, in dense 6-40-flowered racemes; corolla 10-13mm long. Fruit 3-5 by 0.5-0.7cm, densely silky-pubescent.

K123456; 1350-2400m; I-XII

(Rocky) grassland, clump grassland, woody grassland; occasionally in forest margins.

Kipkorkoriet (KIP), Olontwala (MAA).

2. *Argyrolobium friesianum* Harms

Woody herb or shrub 0.7-2m. Stems densely hairy. Leaflets elliptic or slightly obovate, 2-6 by 1-3.5cm, densely hairy beneath. Flowers yellow (orange on wings?) in dense racemes; corolla 9-12mm long. Fruit 2.7-3 by 0.6-0.8cm, hairy.

K34(6); 2100-2700m; VII-VIII, X-XII *

Forer margins and clearings, also in bamboo clearings.

Muchaiki (KIK).

6. BAPHIA

Leaves unifoliolate, stipules caducous; petioles with pulvinus near base and apex. Inflorescence a reduced raceme. Calyx split along one side. Stamens free.

Baphia keniensis Brummitt

RARE, ?VULNERABLE

Shrub or tree 2-9m. Leaves ovate or elliptic, base rounded or broadly cuneate, apex acuminate, margins wavy, 3-12 by 1-4.5cm, glabrous except for the midrib beneath. Flowers white, the standard with some yellow near the base, 1-2 on long stalks from the leaf-axils; corolla 13-17mm long. Fruit rhombic, beaked, 4-5 by 1.5-1.8cm.

K4; 750-1500m; I, IV, IX-X, XII *

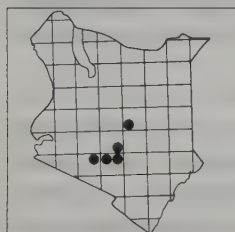
Riverine forest; once collected in mist forest on Endau,



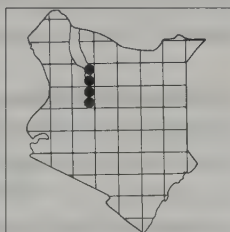
Argyrolobium fischeri



not near water (Owino & Mathenge 45). Endemic to Kenya.



Baphia keniensis



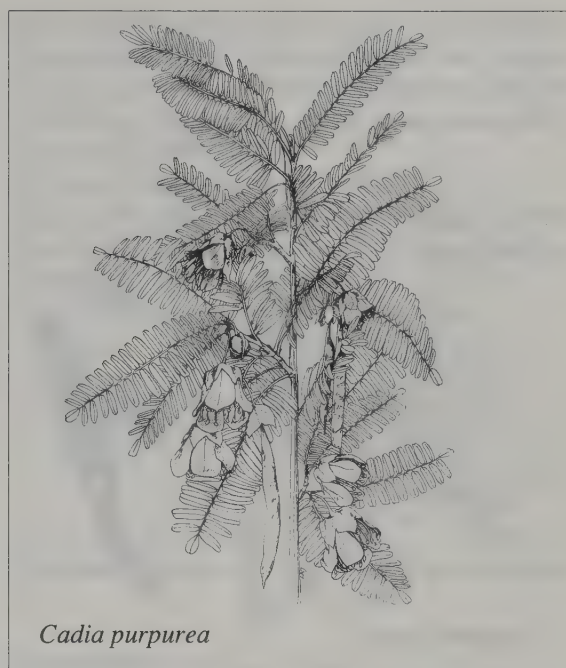
Cadia purpurea

7. CADIA

Leaves imparipinnate, with small stipules and no stipels. Flowers solitary or few on axillary shortshoots; calyx campanulate; petals subequal; free. Stamens 10, free. Fruit flat.

Cadia purpurea (Picc.) Ait.

Shrub or small tree 1.5-4.5(7)m; bark brown with narrow cracks. Leaves 20-50-foliolate; leaflets opposite or alternate, 10-23 by 2-5mm, glabrous except for midrib beneath and margins; leaflets often inrolled. Flowers cream, turning wine-red, hanging; petals 25-30 by 10-14mm. Fruit brown, straight or slightly



curved, 11-14 by 0.9-1.3cm; seeds bright red. K1; 900-2250m; I-II, IV, VI, XI-XII *

Juniperus forest margins, also in remnants such as thickets or in secondary evergreen bushland and there (co-) dominant.

Ilkirereai (SAM).

8. CALPURNIA

Leaves imparipinnate, with small stipules and stipels; leaflets mostly opposite. Inflorescence an axillary (rarely terminal) raceme; calyx campanulate; stamens free or jointed near base only. Fruits usually indehiscent.

Calpurnia aurea (Ait.) Benth. ssp. *aurea*

(see next page for map and illustration)

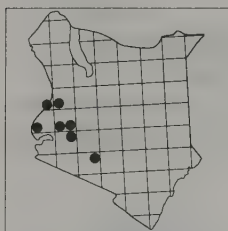
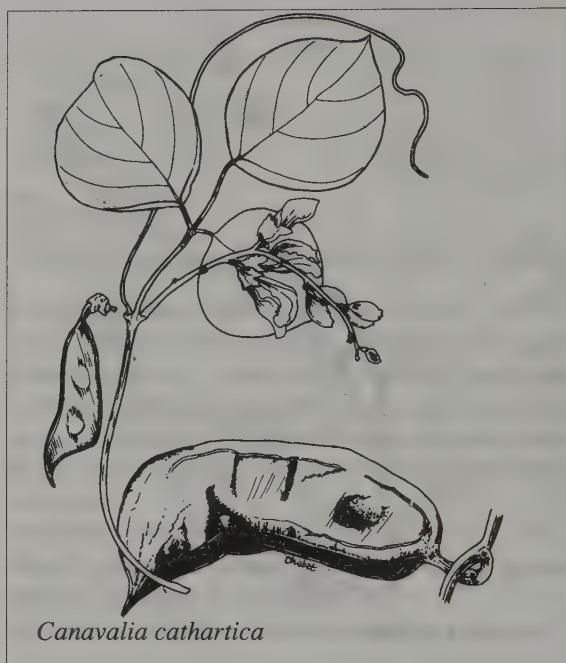
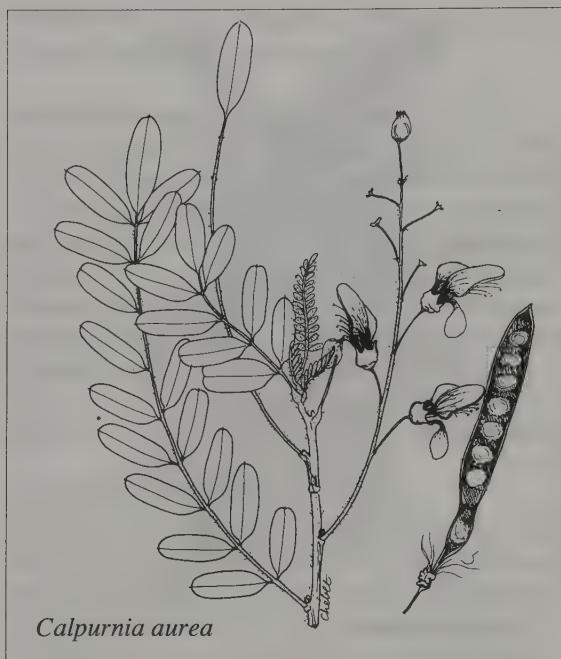
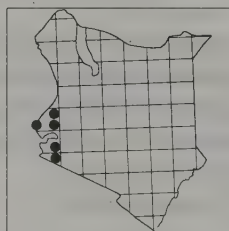
[*C. subdecandra* (L'Hérit.) Schweickhardt]

Shrub or small tree 2-4.5(10)m. Leaves 10-30-foliolate; leaflets ovate to obovate, slightly asymmetrical at base, 2-4 by 1-1.6cm, sparsely hairy. Flowers yellow, in racemes 3-18cm long; corolla 9-20mm long. Fruit yellow or brown, 5-12 by 0.8-1.6cm.

K345; 1450-2250m; I, III, IX, XI *

Moist forest margins and riverine forest.

East African Laburnum (STAND), Tete (NDO), Muchingiri (KIK), Murut (LUO). Poisonous.

*Calpurnia aurea**Canavalia africana*

9. CANAVALIA

Lianas. Leaves pinnately 3-foliolate; stipules and stipels small, deciduous. Flowers with keel above standard. Fruits flat or turgid, with 3 ridges along the upper suture.

1. Leaflets (shortly) acuminate at the apex 2
- * Leaflets rounded or emarginate at the apex

3. *C. rosea*

2. Coastal; fruits curved 2. *C. cathartica*
- * Western Kenya; fruits straight 1. *C. africana*

1. *Canavalia africana* Dunn

(*C. virosa* sensu Verdc., FTEA)

Climber to 25m. Leaves ovate, base broadly cuneate or rounded, apex shortly acuminate, 6-16 by 4-12cm, (sparsely) pubescent. Flowers mauve-pink, white-veined, in hanging racemes 6-21cm long; corolla 2.7-3cm long. Fruit straight, oblong, 10-17 by 2.5-3cm,

half-turgid.

K56; 1100-1800m; VIII-IX *

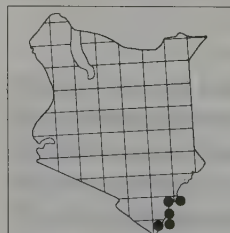
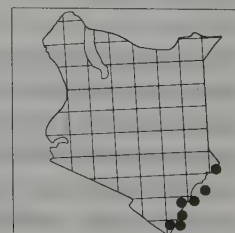
Forest (remnants), bushland, riverine (? wooded grassland ?)

2. *Canavalia cathartica* Thouars

Climber or less often trailer 1-7.5m. Leaflets broadly ovate to almost round, base rounded, apex shortly acuminate, 5-14 by 4-11cm, glabrous or sparsely pubescent. Flowers mauve with pink keel and a white mark near the base of the standard, in hanging racemes 4-12cm long (excluding the stalk); corolla 2.5-3.5cm long. Fruit curved-oblong, somewhat inflated, 6-12 by 3-4.5cm.

K7; 1-450m; I-IV, VI-XII

From the beach (where it is sometimes a pioneer), to the coastal evergreen bushland, less often in evergreen

*Canavalia cathartica**Canavalia rosea*

forest margins.

Mpupu, Mtele (SWA, GIR), Mbolokolo (DIG), Muhabasi (GIR). The species name is not confirmed by local uses - but not rejected either.

3. *Canavalia rosea* (Sw.) DC.

Trailer but occasionally a climber to 10m. Leaflets broadly elliptic to almost round, base broadly cuneate, rounded or truncate, apex rounded or emarginate, often with a small mucro, 5-10 by 3-9cm, glabrous or (sparsely) pubescent. Flowers coloured as *C. cathartica*, in racemes 4-18cm long (excluding the stalk); corolla 2.5-3cm long. Fruit straight, oblong, 11.5-15 by 2.5-3cm.

K7; 1-12m; III-IV, VI-IX, XII *

Beaches and beach fringe vegetation.

Mgwara (SWA).

10. COLUTEA

Leaves imparipinnate, with small stipules and no stipules; leaflets mostly opposite. Inflorescence a few-flowered axillary racemes. Fruit inflated.

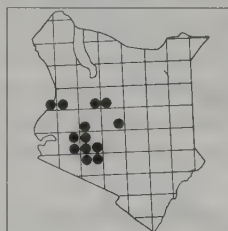
Colutea abyssinica Kunth & Bouché

Woody herb or (scandent) shrub 0.5-3m. Leaves 9-15-foliolate; leaflets elliptic or obovate, 5-18 by 3-10mm,

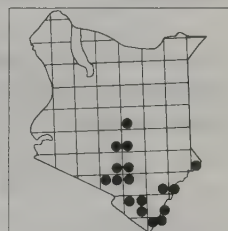
the terminal leaflets largest, sparsely hairy beneath. Flowers dark reddish-brown, almost black, yellow-green near base, in 2-3-flowered racemes; corolla 13-15mm long. Fruit brown or bright red, papery, bladder-like, 3-8 by 1.5-2.5cm.

K134(5)6; 1800-2850m; VI, VIII-XII *

Upland (bushed or wooded) grassland, (semi-) evergreen bushland, *Hagenia* woodland, forest margins. Eimim (MAA).



Colutea abyssinica



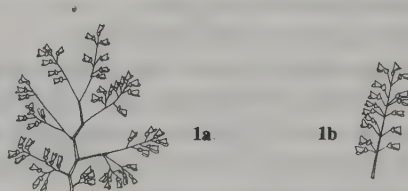
Craibia brevicaudata

11. CRAIBIA

Leaves imparipinnate, with alternate leaflets, and pulvinate; leaflet petiolules wrinkled. Inflorescence a terminal or less often axillary raceme or panicle. Fruit flat, asymmetric, shortly beaked.

1. Inflorescence paniculate; northern Kenya

3. *C. laurentii*



* Inflorescence racemose 2

2. Inflorescence sparsely hairy; Taita Hills

4. *C. zimmermannii*

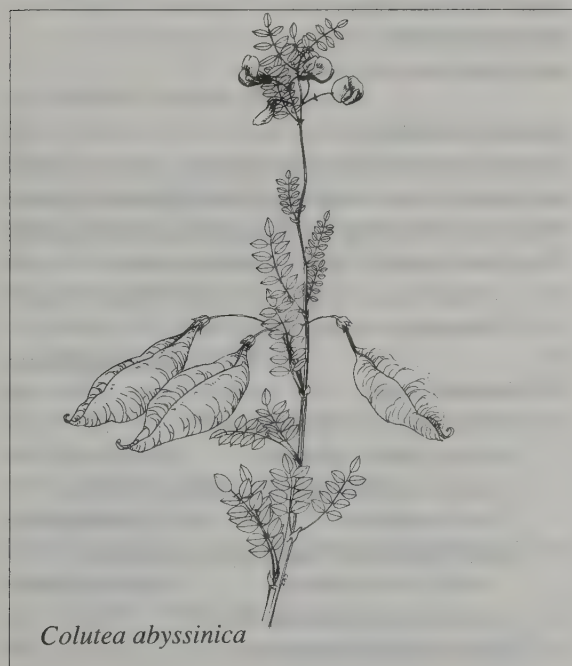
* Inflorescence densely brown-pubescent 3

3. Stipules oblong; leaflets 3-8; ovary pubescent all over 2. *C. brownii*

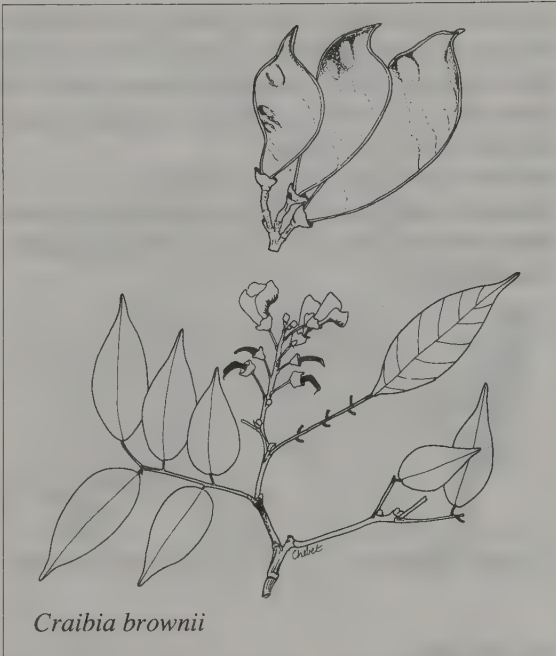
* Stipules subcircular; leaflets 3-5; ovary hairy on margins only 1. *C. brevicaudata*

1. *Craibia brevicaudata* (Vatke) Dunn

Shrub or tree 1.5-7.5m (to 16m in coastal forest), evergreen. Leaves 3-5-foliolate; leaflets shiny, ovate or elliptic, base cuneate or rounded, apex acuminate, 3.5-14.5 by 1.5-5.5cm, glabrous or nearly so. Flowers



Colutea abyssinica



white (rarely pink), in terminal racemes 2-7cm long; corolla 12-18mm long. Fruit 6.5-9 by 2-3cm; seeds black.

K467; 1-1050m; III-VI, IX-XII

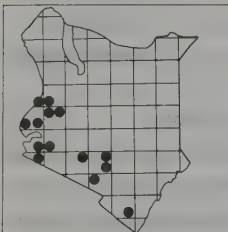
Evergreen coastal forest, rocky woodland, bush/woodland, and along rivers in rocky sites.

Mfunda, Mweupe (SWA), Mvunda (GIR).

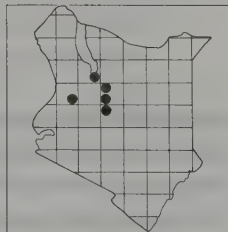
Most specimens from Kenya are ssp. *brevicaudata*, but ssp. *burtii* (Bak.f.) Gillett has been found near Kibwezi and on Emali Hill; this ssp. is distinguished by persistent bracteoles of about 3mm long (caducous and only 1.5mm in ssp. *brevicaudata*).

2. *Craibia brownii* Dunn

Tree 3-24m; bark pale grey. Leaves 3-8-foliolate; leaflets shiny, elliptic, base cuneate to rounded, apex gradually acuminate, 4-15 by 1.5-7cm, glabrous.



Craibia brownii



Craibia laurentii

Flowers pink, white, or lilac, in racemes 4-13cm long; corolla 18-22mm long. Fruit 4.5-10 by 1.5-3.5cm; seeds black.

K34567; 1150-2100m; II-VII, XI-XII (V-VI)

Riverine forest, dry (*Croton-Brachylaena*) or moist forest.

Muthi, Mutisi (KAM), Mukumbu (KIK), Muhandi (LUH), Neunet (NAN), Cheptewo (TUG). Seeds edible after long cooking. Wood close-grained, white, hard.

3. *Craibia laurentii* (De Wild.) De Wild.

Tree 9-10(18?)m; bark smooth, pale grey. Leaves 5-7-foliolate; leaflets elliptic, base cuneate or rounded, apex acute or briefly and obtusely acuminate, 6-19 by 4-9.5cm, glabrous (except sometimes leafbase). Flowers white, in 8-16cm long panicles; corolla 12-15mm long. Fruit 12-13 by 3.5cm.

K1,2/3; 900-1350m; I, III, VII *

(Riverine) forest or among rocks.

Ilot (REN), Leli (SAM).

4. *Craibia zimmermannii* (Harms) Dunn

Tree to 25m. Leaves 3-5-foliolate; leaflets ovate or elliptic, base rounded, apex long-acuminate, 7-10 by 3-5cm, glabrous (except sometimes midrib). Flowers white, in racemes 2-5cm long; corolla 15-17mm long. Fruit 7-11 by 3-3.5cm.

K7; 1450-1850m; XII *

Mist forest, in Taita Hills only.

12. CROTALARIA

Leaves digitately 3-foliolate; stipules various. Flowers yellow, usually in terminal leaf-opposed racemes. Flower usually with beak-like keel. Stamens all joined, 5 large and 5 small. Fruits usually inflated.

1. Leaflets tiny, 3-8 by 1-3mm, on long petioles (Suswa-Longonot area)

12. *C. pseudospartium*

- * Leaflets larger 2
- 2. Stipules leafy, shortly stalked 3
- * Stipules linear, or absent 4

3. Leaflets long-pubescent; corolla 20-24mm; fruit tomentose

7. *C. lachnophora*

- * Leaflets minutely puberulous, corolla 11-14mm; fruit glabrous

11. *C. natalitia*

4. Calyx and corolla same size 5
- * Corolla longer than calyx 7

5. Leaflets densely pubescent

6. *C. lachnocarpoides*

- * Leaflets sparsely puberulous or glabrous above

6

6. Petiole 4.5-8cm long; stipules 6-14mm long

10. *C. mauensis*

- * Petiole 1-4.5cm long; stipules caducous, to 2mm long

4. *C. goodiiiformis*

7. Corolla 2.5-5cm long, with straight beak

8

- * Corolla less than 2cm long, with twisted beak

9

8. Corolla 3.5-5cm long; keel slightly rounded

1. *C. agatiflora*

- * Corolla 2.5-3cm long; keel halfcircular

8. *C. lebrunii*

9. Flowers in fascicles, or in almost sessile racemes

2. *C. axillaris*

- * Flowers in (long-)pedunculate racemes

10

10. Petiole 2.5-8cm; bracts falling before flowers open; calyx white-hairy inside

13. *C. tabularis*

- * Petiole less than 4cm; bracts persistent; calyx not whitish inside

11

11. Stipules 1-2mm; leaves spaced

12

- * Stipules 2-4mm; leaves crowded

3. *C. fascicularis*

12. Keel greenish-white; standard purple-yellow; fruit 4-6 by 1.5-2cm

9. *C. lukwangulensis*

- * Keel and standard yellow to orange; fruit 1.5-3 by 0.5-1cm

5. *C. keniensis*

1. *Crotalaria agatiflora* Schweinf.

Woody herb, shrub or small tree 0.5-9m. Leaflets elliptic or ovate, base cuneate, apex acute or obtuse, 3-9 by 1-3.5cm, glabrous or pubescent. Flowers pale yellow, keel sometimes reddish, keel with black tip, in many-flowered racemes; corolla 3.5-5cm. Fruit 7-10 by 1-2cm, glabrous.

1. Leaflets glabrous beneath ssp. *agatiflora*

- * Leaflets hairy beneath 2

2. Leaflets > 2x as long as wide ssp. *engleri*

- * Leaflets < 2x as long as wide ssp. *imperialis*

- ssp. *agatiflora*

Woody herb or shrub to 3m, glabrous.

K346; 1450-2400m; I-XII

Bushed grassland, roadsides and waste places, edges of cultivation

- ssp. *engleri* (Bak.f.) Polhill

Shrub or tree 1-9m; pubescent on branches and leaves;

bracts 8-16mm wide.

K3456; 1800-3300m; I-XII

Moist forest and bamboo, usually in margins and clearings; also in *Hagenia* zone.

- ssp. *imperialis* (Taub.) Polhill (*C. imperialis* of KTS)

Shrub or woody herb 0.5-3m, pubescent on branches and leaves; bracts up to 6mm wide.

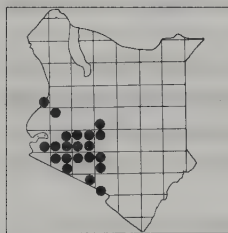
K3456; 1500-2400m; I-II, IV-VII, X-XII

Roadsides and waste places, edges of cultivation, riverine, forest margins.

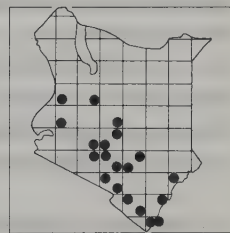
Lion's Claw (STAND), Iviinzi (KAM), Muchingiri, Mwethia (KIK), Kipkururiet (KIP), Olontwalan (MAA), Muchuguchugu (MER). A root decoction is used by Maasai against gonorrhoea.

2. *Crotalaria axillaris* Ait.

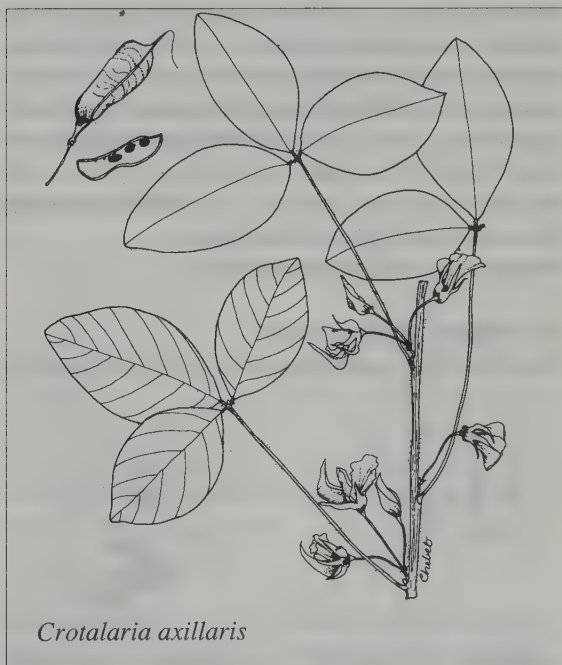
Woody herb or shrub, 0.7-4m. Leaflets elliptic, base



Crotalaria agatiflora



Crotalaria axillaris



Crotalaria axillaris

cuneate, apex acute to rounded, 2-9 by 1-5cm, puberulous to pubescent beneath. Flowers yellow, fading to reddish, axillary in very short racemes or in fascicles of 2-6; corolla 15-18mm long. Fruit 4.5-6 by 0.8-1.4cm, puberulous or pubescent.

K134567; 1-2250m; I-XII (VI)

Forest margins, secondary bushland, woodland on the coast, grassland.

Mchekecheke (SWA), Mugelekele (DIG), Muchangire (KIK), Mchuguchugu (MER), Luafumbo (TAI). A leaf decoction is used by the Digo against sore eyes.

3. *Crotalaria fascicularis* Polhill

Woody herb or shrub 1-2m. Leaves often seemingly fasciculate (crowded on very short shoots), leaflets (somewhat) obovate, base cuneate, apex acute to rounded, 1-5 by 0.5-2.2cm, pubescent beneath. Flowers yellow, fading to orange, in long rather dense racemes; corolla 12-16mm long. Fruit 1.5-3 by 0.6-0.8cm, puberulous.

K1234; (1250)1550-2250m; II, V-VI, VIII-XII

Cedar forest (margins) or its remnants such as clump thicket grassland or secondary grassland.

Letwalan (SAM), Emaret (TUR).

4. *Crotalaria goodiiiformis* Vatke

(*C. saxatilis* of KTS)

Shrub 0.5-3m. Leaflets elliptic or obovate, base cuneate, apex acute to rounded, 1-5 by 0.5-2.5cm, sparsely hairy. Flowers yellow or orange, with a purple patch, in few-flowered racemes; corolla 10-12mm long. Fruit 3-4 by 0.8-1cm, thinly pubescent.

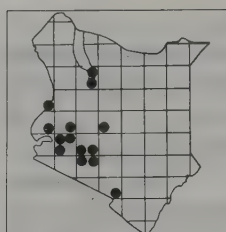
K1467; 50-2250m; I-XII (V, XI)

Wooded or bushed grassland, deciduous woodland, deciduous bushland, or forest margins.

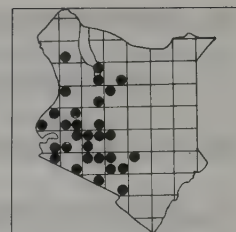
Muthelia (KAM), Muchingiri (KIK).

5. *Crotalaria keniensis* Bak.f.

Woody herb or (scandent) shrub, 0.3-2.5m. Leaflets



Crotalaria keniensis



Crotalaria lachnocarpoides

elliptic or obovate, base cuneate, apex acute to rounded, 1-3.5 by 0.5-1.5cm, puberulous beneath. Flowers yellow or orange, in long many-flowered racemes; corolla 11-15mm long. Fruit 1.5-3 by 0.5-1cm, puberulous but becoming glabrous.

K13456; (1450?) 1900-2850m; I-IV, VII-XII (XI).

Forest margin, evergreen bushland (usually secondary or near forest).

6. *Crotalaria lachnocarpoides* Engl.

Woody herb or shrub, rarely to 2m. Leaflets elliptic to slightly obovate, 3.5-7 by 1-2.5cm, densely pubescent on both surfaces. Flowers yellow (reddish-brown outside), fading to orange, in 6-12 flowered racemes; corolla 11-15mm long. Fruit 2.5-3 by 1-1.3cm, densely tomentose ("like a teddy bear").

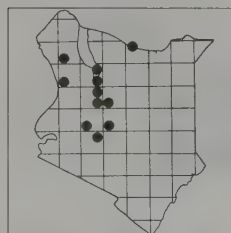
K123456; 1200-2650m; I-XII (VII-VIII).

(Secondary) grassland, often with scattered trees or thickets, bushed grassland, forest margins.

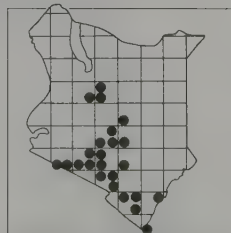
Musuusuu (KAM), Muchingiri (KIK), Kipkurkuriyet (KIP), Obwari (KIS), Lihori (LUH), Olontwalan (MAA), Lukwalan (SAM), Lochoroi (TUR).

7. *Crotalaria lachnophora* A.Rich.

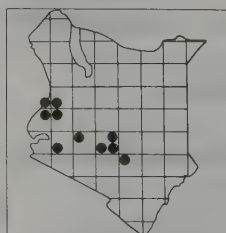
Woody herb or shrub 1-2.5m. Leaflets elliptic or obovate, base cuneate, apex acute to rounded, 3-7.5 by 0.8-3.5cm, densely pubescent beneath. Flowers yellow, fading to orange-red, in loose few- or many-flowered racemes; corolla 20-24mm long. Fruit 2-4.5 by 1.3-1.7cm, densely tomentose.



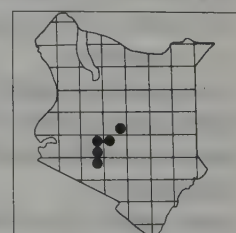
Crotalaria fascicularis



Crotalaria goodiiiformis



Crotalaria lachnophora



Crotalaria lebrunii

K345; 1150-2100m; III, V-VI, VIII, X *

(Bushed) grassland, riverine grassland, and sometimes in thorn scrub; also in roadsides.

Musuusuu (KAM), Muchingiri (KIK), Kipkurkuri (KIP), Obwari (KIS), Lihori (LUH), Olontwala (MAA), Lukwala (SAM), Lochoroi (TUR).

8. *Crotalaria lebrunii* Bak.f.

Shrub 1-4.5m. Leaves elliptic, base cuneate, apex obtuse, 3-8 by 1-4cm, densely puberulous/pubescent beneath. Flowers yellow with purple markings in loose, long racemes; corolla 2.5-3cm long. Fruit purplebrown, 7.5-9 by 1.5-2cm, glabrous.

K4(6?); 1800-2400m; III, VI, IX-X *

Forest margins and -clearings.

9. *Crotalaria lukwangulensis* Harms

Climbing shrub to 3(6)m. Leaflets elliptic, base cuneate, apex obtuse or rounded, 1.5-4.5 by 0.6-1.8cm, puberulous beneath. Flowers with greenish-white keel, yellow wings and purple/yellow standard, in rather lax racemes; corolla 13-17mm long. Fruit purplish green, 4-6 by 1.5-2cm, puberulous but becoming glabrous.

K7; 1450-2200m; II, IX, XII *

Taita Hills forests.

10. *Crotalaria mauensis* Bak.f.

Woody herb or shrub 0.5-4m. Leaflets elliptic, base cuneate, apex obtuse or acute and usually mucronate, 2-8 by 1-5cm, pubescent beneath. Flowers yellow, in many-flowered rather dense racemes; corolla 12-15mm long. Fruit golden brown, 4-6.5 by 1.2-1.9cm, densely pubescent.

K3456; 1500-2550m; I, IV-XI

Forest margins, (bushed) grassland, secondary bushland; often on roadsides.

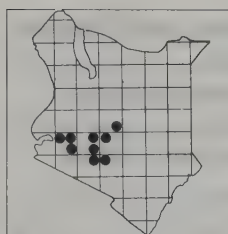
Mwethia (KIK), Mugumba (MER).

11. *Crotalaria natalitia* Meissn.

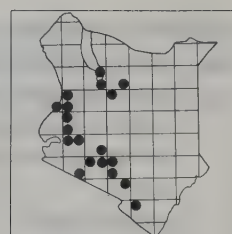
Woody herb or shrub 0.15-2.5m. Leaves often crowded on short shoots; leaflets linear, elliptic or slightly obovate, base cuneate, apex obtuse or mucronate, 0.8-4 by 0.3-1.2cm, pubescent beneath. Flowers yellow, turning reddish-orange, in dense, rather short racemes; corolla 11-14mm long. Fruit mottled with black, 2-4 by 1-1.3cm, glabrous.

K1234567; 1350-2550m; I, III-XII (VII-X).

Upland (bushed) grassland, forest margins, roadsides,



Crotalaria mauensis



Crotalaria natalitia

wooded grassland.

- var. *natalitia* - calyx and upper pedicel glabrous.

- var. *rutshuruensis* De Wild. - calyx and upper pedicel pubescent.

Olontwala (MAA), Celiuk (SAM).

12. *Crotalaria pseudospartium* Bak.f.

Woody herb 1-3m. Leaflets much reduced, on a long petiole, 0.3-0.8 by 0.1-0.3cm glabrous. Flowers yellow with red-brown, in few-flowered racemes; corolla 3-3.5cm long. Fruit 4-7 by 0.8-1cm, glabrous.

K346; 1800-2250m; I, III-IV, VI, X-XII *

Open grassy places in bushland. Near-endemic; one collection from Oldoinyo Lengai (Tanzania).

Kipkururi (KIP), Olontwala (MAA).

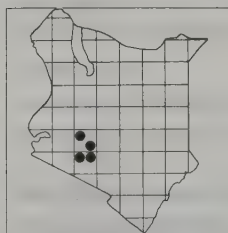
13. *Crotalaria tabularis* Bak.f.

Woody herb or shrub 1-3m. Leaflets elliptic, base cuneate, apex rounded or mucronate, 2-8 by 1-3cm, puberulous beneath. Flowers yellow, in rather lax racemes; corolla 15-18mm long. Fruit 5-7 by 0.6-1.3cm, puberulous but becoming glabrous.

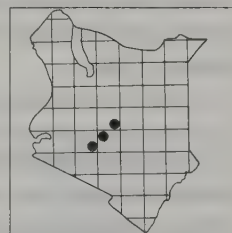
K4; 1900-2700m; I, IX-X *

Moist forest margins.

Mucingiri (KIK).



Crotalaria pseudospartium



Crotalaria tabularis

13. DALBERGIA

Sometimes spiny. Leaves imparipinnate; stipules usually caducous, stipels absent; leaflets alternate;

inflorescence terminal and axillary, usually paniculate. Fruit indehiscent, samaroid.

1. Young branches clustered near the nodes, tufted; spines often present 2
- * Young branches spaced, not tufted, spines absent 5
2. Leaflets obovate 3
- * Leaflets elliptic 4
3. Leaflets 4-6 per leaf 3. *D. commiphoroides*
- * Leaflets 8-12 per leaf 6. *D. melanoxylon*
4. Leaflets sparsely puberulous; found below 350m 4. *D. eremicola*
- * Leaflets pubescent; found above 700m 7. *D. microphylla*
5. Inland species, above 1000m; fruit 10-17cm long 5. *D. lactea*
- * Coastal species, below 450m; fruit less than 11cm long 6
6. Leaflet apex acuminate 2. *D. bracteolata*
- * Leaflet apex obtuse or rounded 7
7. Leaflets 3-7.5 by 1.5-3.5cm; fruit 6-11cm long 1. *D. boehmii*
- * Leaflets 1.4-2.7 by 0.5-1.3cm long; fruit 2.5-4.5cm long 8. *D. vacciniifolia*

1. *Dalbergia boehmii* Taub. ssp. *boehmii*

Shrub or tree 4.5-12m, deciduous; old bark rough and flaking. Leaflets 8-16 per leaf, ovate, base broadly cuneate or rounded, apex bluntly acute, 3-7.5 by 1.5-3.5cm, glabrous or tomentose. Flowers white or cream, in many-flowered panicles 5-13cm long; sometimes flowering when leafless; corolla 5-7.5mm long. Fruit reddish-brown, 6-11 by 1-2cm, papery. K7; 1-200m; *

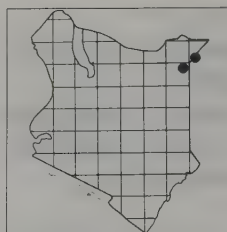
Kwale District north to Rabai.

Occurs (in Tanzania) in forest, woodland or bushland. Mranze (GIR).

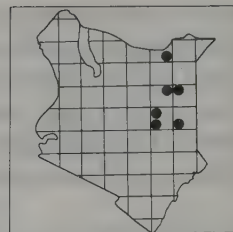
2. *Dalbergia bracteolata* Bak.

(Scandent) shrub or tree 3-7.5m; bark slightly furrowed. Leaflets 6-10 per leaf, ovate or elliptic, base rounded, apex acuminate, 2.5-6 by 1-3cm, glabrous or pubescent. Flowers white or cream, in many-flowered panicles 4-10cm long; corolla 6.5-8mm long. Fruit oblong, 4-7 by 1.3-1.8cm, slightly leathery.

K7; collected once in Shimba Hills (Kassner 220, in 1902) and recently by Luke at Buda.



Dalbergia commiphoroides



Dalbergia eremicola

3. *Dalbergia commiphoroides* Bak.f.

Shrub or small tree 1.5-5m; branchlets clustered at the nodes, some spine-tipped. Leaflets 4-6 per leaf, broadly obovate, base cuneate, apex rounded, truncate or emarginate, 0.8-2.4 by 0.7-2.3cm, pubescent. Flowers white, in racemes or hardly branched panicles 2-3cm long; corolla 5-6mm long. Fruit elliptic, 3-4.5 by 1-1.5cm, papery.

K1; 400-500m; - *

Acacia-Commiphora bushland.

Dusiya (SOM).

4. *Dalbergia eremicola* Polhill

(*D. sp.* of KTS)

RARE

Shrub 2-5m, with flaking bark and spine-tipped branchlets. Leaves and inflorescences on tiny cushion-shaped short shoots; leaflets 12-26 per leaf, elliptic, 0.4-1 by 0.1-0.5cm, sparsely puberulous. Flowers white, in racemes 1-2.5cm long, corolla 4-4.5mm long. Fruit 3-4 by 1.2-1.5cm, papery.

K1; 150-300m; III *

Acacia-Commiphora bushland; common on red sandy soils near Wajir. Endemic.

Deidei (SOM).

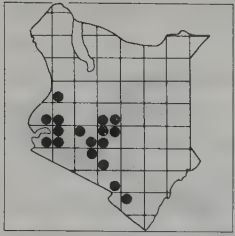
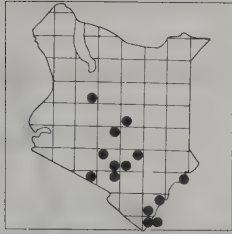
5. *Dalbergia lactea* Vatke

Shrub 1.5-3m or liana to 20m, climbing with coiled branchlets, evergreen. Leaflets 12-20 per leaf, elliptic, base broadly cuneate or rounded, apex rounded or emarginate, 4-9 by 2-5.5cm, glabrous or pubescent. Flowers mauve-white to purple, in large many-flowered panicles; corolla 6.5-9mm long. Fruit pale brown, oblong, 10-17 by 3-4.5cm, slightly leathery.

K(2)3457; 1050-2400m; I-II, IV-VI, VIII-XII

Riverine.

Mumbumbwa (KAM), Mwaritha (KIK), Ol-Disigon (MAA), Murumbega (MER), Bembet (NAN), Kinyondo (TAI). Bark fibres used for weaving and for rope.

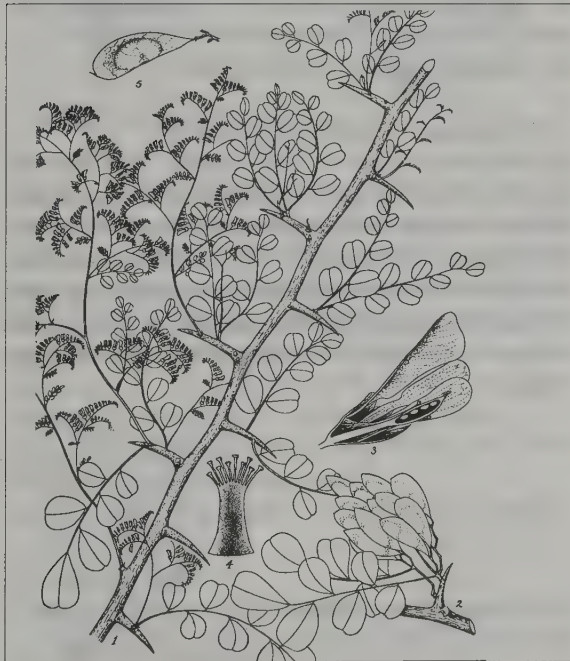
*Dalbergia lactea**Dalbergia melanoxylon***6. *Dalbergia melanoxylon* Guill. & Perr.**

Shrub or tree 1-11 m, often several-stemmed and much branched; bark pale grey, in older trees fissured or flaking. Branchlets clustered at nodes, partly spine-tipped. Leaflets 8-12 per leaf, obovate, base broadly cuneate to subcordate, apex truncate or emarginate, 1-5 by 0.7-3 cm (to 6 x 5 cm on the coast), pubescent beneath but becoming glabrous. Flowers appearing with young leaves on small cushion-shaped branchlets, white, in many-flowered panicles 3-12 cm long, corolla 4-6 mm long. Fruit elliptic or oblong, 3-7 by 0.8-1.4 cm, papery.

K3467; 1-1150 (1650)m; I, III, IX-XI *

Deciduous woodland or -bushland, wooded grassland, often in rocky sites or on black cotton soil.

African Blackwood (STAND), African Ebony (TRADE), Mpingo (SWA, DIG), Mvingo (KAM),

*Dalbergia melanoxylon* Guill. & Perr.

1: flowering branchlet (1 nat. size). 2: fruiting panicle (1 nat. size).
3: flower in vertical section, $\times 8$. 4: staminal sheath, $\times 10$.
5: immature fruit (nat. size).

Samachi (BON), Humbolanguwe (DIG), Mwengo (MER), Muyingo (TAI). Excellent hardwood, used for carving and instrument-making. Becoming rarer in Kenya due to overexploitation.

7. *Dalbergia microphylla* Chiov.

(incl. *D. microcarpa* Bak.f.)

Shrub 2-4 m (? tree in N. Baringo). Branchlets not or hardly spine-tipped. Leaflets 12-16 per leaf, oblong, rounded at both ends, 0.4-1.8 by 0.1-1 cm, pubescent. Flowers appearing with young leaves, white, in racemes or panicles 1.5-5 cm long, often on tiny cushion-shaped branchlets; corolla 7-8 mm long. Fruit brown, elliptic, 2-3 by 0.8-1.3 cm, papery.

K137; 750-1150m; I, III, X *

Acacia(-*Commiphora*) bushland.

Malsamala (BON), Prokokonyon (PKT). Timber used by Pokot for roofpoles. Leaves chewed against mouth ulcers by the Pokot.

8. *Dalbergia vacciniifolia* Vatke

(Scandent) shrub 1-3 m. Leaflets 10-16 per leaf, elliptic, base and apex rounded, 1.4-2.7 by 0.5-1.3 cm, glabrous or thinly pubescent. Flowers white, in many-flowered panicles 4-9 cm; corolla 6-8 mm long. Fruit oblong-elliptic, 2.5-4.5 by 0.8-1.2 cm, papery.

K7; 1-500m; I-II, IV-V, VII-XII

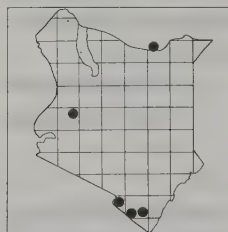
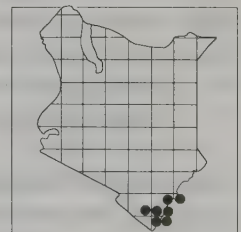
Coastal evergreen bushland/thicket near the sea, dry forest near the sea, secondary bushland.

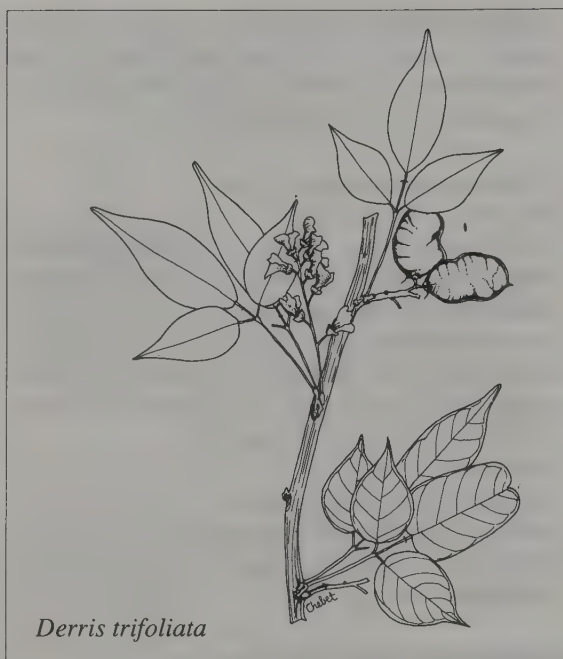
Mupungwa, Kikwaju (SWA, GIR), Humbolanguwe (DIG).

NOTE: Magogo 1235 has been found in Shimba Hills at 375m, and Lye 6291 at Taru, at 300m. Both were found in thickets; their altitude is higher than any other *vacciniifolia*.

14. DERRIS

Leaves imparipinnate, with opposite leaflets, caducous stipules and tiny stipels. Inflorescence terminal and

*Dalbergia microphylla**Dalbergia vacciniifolia*



axillary, a (subracemose) panicle. Fruit flat.

***Derris trifoliata* Lour.**

Liana with twining branches 3-6 (15)m, evergreen; bark and branchlets with raised lenticels. Leaflets 3-5 per leaf, ovate or elliptic, base rounded to slightly peltate, apex acuminate, 5-11 by 2.5-6.5cm, glabrous or nearly so. Flowers white to pale mauve, in panicles 10-28cm long; corolla 9-12mm long. Fruit kidney-shaped to broadly elliptic, 2.5-4.5 by 2-3cm.

K7; near high water mark; III, X-XI *

Riverine near the tidal zone or in mangrove swamps. As yet only found near the mouths of the Mwena, Tana and Sabaki Rivers.

Mkurubuku (SWA).

15. DESMODIUM

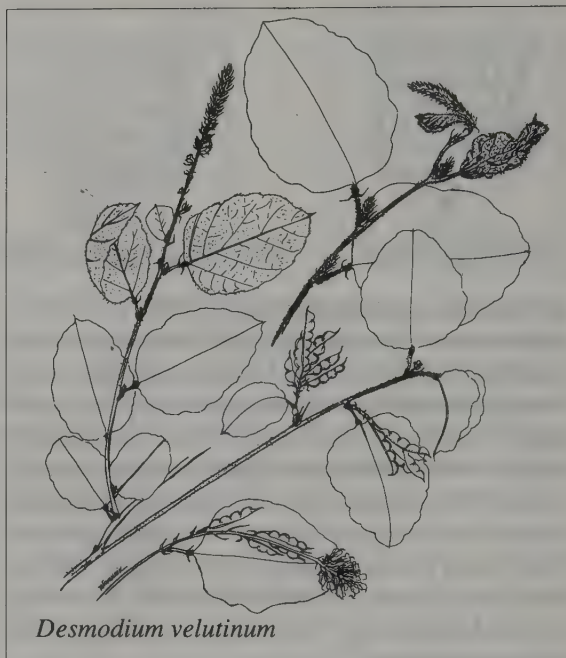
Leaves 1-or 3-foliolate, with (persistent) stipules and stipels and long petioles. Inflorescence racemose. Fruit constricted between the seeds, oblong.

1. Leaves 3-foliolate 1. *D. umbellatum*

* Leaves 1-foliolate 2. *D. velutinum*

1. *Desmodium umbellatum* (L.) DC.

Spreading shrub to 3m. Leaves pinnately 3-foliolate; stipules caducous; leaflets broadly elliptic or (ob)ovate,



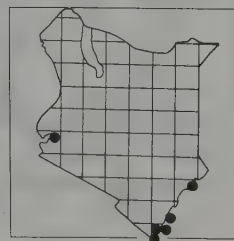
the lateral ones slightly oblique and smaller than the terminal (which is 6-8 by 4-5.5cm), silky-pilose beneath. Flowers white or yellow, in axillary subsessile umbels; corolla 9.5-13.5mm long. Fruit 1-6-seeded, densely pilose, 4.5-7.5mm wide.

K7; the only Kenyan collection is Napier 3294, flowering in May 1934 at English Point, Mombasa.

In Tanzania found on sandy beaches.

2. *Desmodium velutinum* (Willd.) DC.

Woody herb or shrub 1-2(3)m. Leaves 1-foliolate with persistent stipules and 2 small stipels on the petiole; leaflets broadly ovate, base truncate or subcordate, apex obtuse or rounded, 4-10 by 3-8.5cm, short-velvety beneath. Flowers whitish pink, mauve or purple, in long terminal and shorter axillary racemes; corolla 4-6mm long. Fruit 2-6-seeded, pubescent, 2.5-4mm wide.



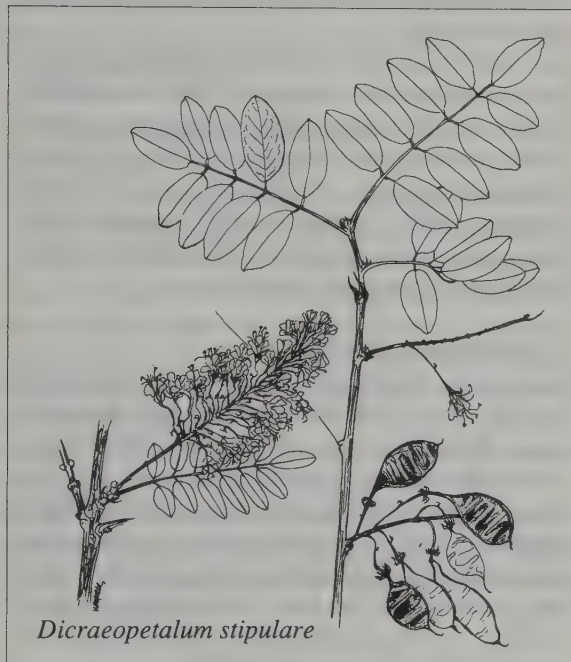
K357; 1-300 (coast) and about 1300m (inland); II-VI, VIII, XI-XII

Wooded grassland, palm woodland and coconut plantations, forest edges.

Girimata (SWA), Chibalazi Mlungu (DIG)

16. DICRAEOPETALUM

Leaves imparipinnate, leaflets (sub-)opposite, with persistent stipules. Inflorescence terminal on short-shoots, racemose. Flowers with 5 free, almost equal petals.



Dicraeopetalum stipulare

Dicraeopetalum stipulare Harms VULNERABLE

Tree 5-12m with fibrous or flaking bark. Leaves often in bunches on short shoots; leaflets 7-11 per leaf, elliptic, base cuneate, apex rounded or slightly emarginate, 2-3 by 0.9-1.7cm, slightly hairy (more so on the midrib and margins). Flowers white, in many-flowered racemes 5-8cm long; petals 5-6mm long. Fruit elliptic, 2.5-4 by about 1.5cm, flat and papery.

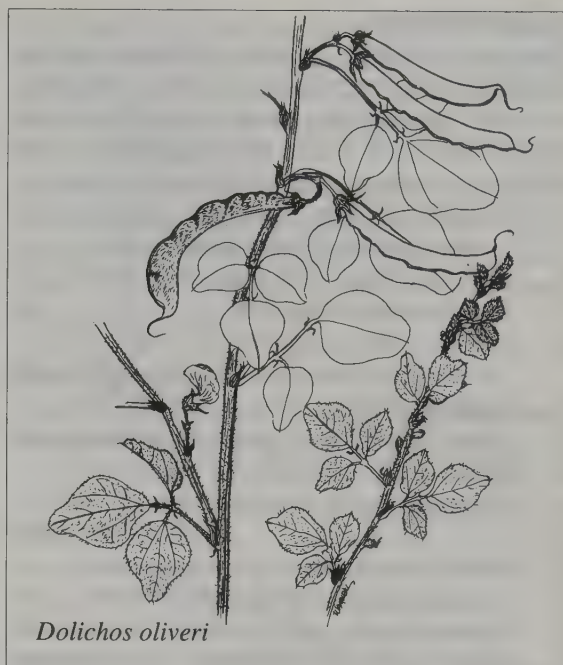
K1; collected once at 300m alt., 105 km NE of Wajir.

Acacia-Commiphora bushland.

Sable (SOM). Bark used for tanning by the Somali.

17. DOLICHOS

Often flowering when still leafless. Leaves pinnately 3-foliolate (in *D. oliveri*); stipules and stipels present.



Dolichos oliveri

Inflorescence an axillary fascicle, sometimes appearing racemose when leaves on flowering branches do not develop.

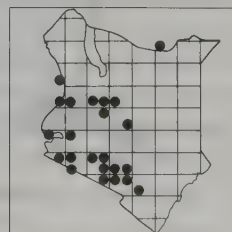
Dolichos oliveri Schweinf.

Erect or climbing shrub 0.5-2.5m. Leaflets 3, ovate and sometimes bluntly 3-lobed, base cuneate or rounded, apex emarginate or obtuse and mucronate, 1-6 by 0.6-4.5cm, the laterals smaller, velvety beneath. Flowers blueish purple with a reddish-purple standard, 1-5 in axillary fascicles; corolla 15-24mm long. Fruit curved, 5.5-8 by 0.8-1.1cm, pubescent.

K123456; 900-1900m; I-XII

Dry or semi-evergreen bushland, bushed or wooded grassland.

Loloso (BOR), Kithithi (KAM), Idakat (SAM), Emaret (TUR). The large (to 60cm long) root tubers are said to be poisonous, and are used for soap by the Samburu.



Dolichos oliveri

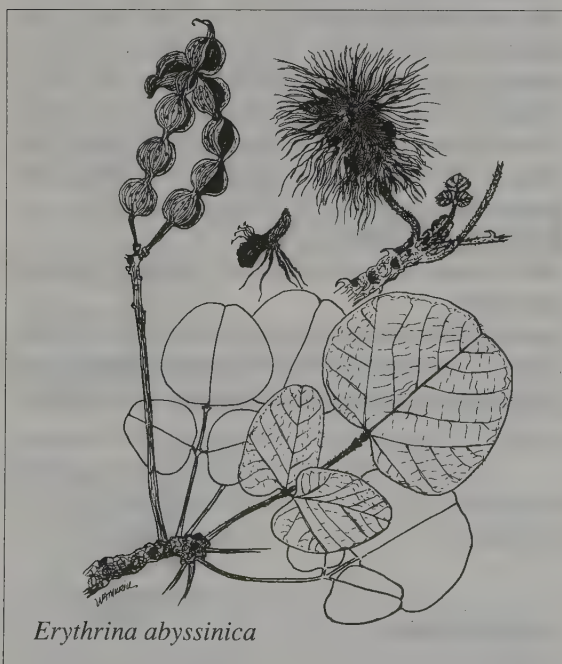
18. ERYTHRINA

Often spiny on trunk, branches and leaves. Leaves pinnately 3-foliolate, with usually fleshy and glandular stipels. Inflorescence mostly pyramidal; keel and wings usually much smaller than the standard. Fruits leathery or woody, constricted between the seeds.

1. Calyx stellate-hairy; leaves also usually with some star-hairs; fruits not constricted **2**
- * Calyx and leaves with simple hairs; fruits constricted between seeds **3**
2. Leaflets 1-5cm long and wide; corolla 2.5-4.5cm long; fruit 6.5-9.5cm long **2. *E. burtii***
- * Leaflets 2-9 by 1.5-12cm; corolla 5-7.5cm long; fruit 13-30cm long **4. *E. melanacantha***
3. Mature leaves nearly always velvety-hairy beneath; corolla wings red, calyx 5-lobed **1. *E. abyssinica***
- * Mature leaves (almost) glabrous beneath; corolla wings white or calyx 2-toothed **4**
4. Western species; calyx 2-toothed **3. *E. excelsa***
- * Coastal species; calyx 5-lobed **5. *E. saculeuxii***

1. *Erythrina abyssinica* DC ssp. *abyssinica*
(*E. webberi* Bak.f., p.p)

Tree 3-15m, deciduous; bark yellowbrown, thick and corky, fissured, usually with thick spines. Often



flowers when leafless. Leaflets broadly ovate, rounded or wider than long, base rounded to cordate, apex rounded or emarginate, 3-20 by 3-21cm, usually tomentose or velvety at least beneath; prickles present on petiole and sometimes on midrib of leaflets. Flowers bright red (pale pink), in dense erect racemes 2-20cm long; corolla 2.8-5cm long. Fruit woody, straight or curved, 4-16 by 1.2-2.4cm, much constricted between the seeds. Seeds scarlet and black.

K1234567; 300-450(coast) and 900-2250m; I-XII (II-III, XI-XII).

Scattered tree grassland, open woodland, forest edges, rocky bushland.

Red Hot Poker Tree (STAND), Mbamba Ngoma (SWA), Mgalla (DUR), Muvuti (KAM), Muhuti (KIK), Kipisorwet, Kogoruet (KIP), Murembe, Orembe (LUO), Kumurembe, Umtembe (LUH), Ol-Opongi (MAA), Gorgorwa (MAR), Kakaruet (NAN), Korkorwo (PKT), Garacha (SAM), Kaborte (SEB). The wood is used for doors, stools, and beehives; Maasai brew a tonic tea from the roots.

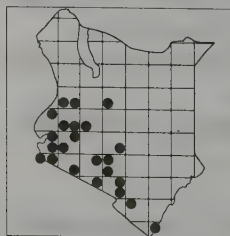
2. *Erythrina burtii* Bak.f.

Tree 5-17m, deciduous; with flat crown and deeply fissured, corky bark with raised bosses topped by spines. Branches spiny. Often flowers when leafless. Leaves often on short shoots; leaflets round, elliptic or obovate, base cuneate to rounded, apex emarginate to rounded, 1-5 by 1-5cm, sparsely stellate-pubescent to almost glabrous. Flowers red, in dense racemes 6-9cm long; corolla 2.5-4.5cm long. Fruit straight or curved, 6.5-9 by 1-1.8cm, not constricted. Seeds orange or red. K13467; 950-1750m; II, VIII-XII (X)

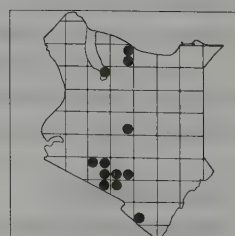
Wooded or scattered tree grassland or *Acacia-Commiphora* bushland.

Kikunguu, Mboosi (KAM), Engaraji (MAA). Wood is used for stools and camel bells.

Note: some trees from the Hurri Hills are hardly prickly, with smooth trunks.



Erythrina abyssinica



Erythrina burtii

3. *Erythrina excelsa* Bak.

Tree 10-30m with long straight bole; bark pale grey, slightly fissured, with big woody spines. Branches spiny. Often flowers when leafless. Leaflets elliptic or ovate, base rounded or truncate, apex obtuse or acuminate, 7-24 by 3.5-17cm, velvety when young but becoming glabrous. Flowers red, in rather dense, almost one-sided racemes 7-28cm long; corolla 2.3-4cm long. Fruit woody, curved or contorted, up to 20cm long and 1.5-2.3cm wide, constricted between some seeds.

K5; 1250-1400m; I, XI *

Riverine; known from Kisii-Migori area.
Roko, Yuma (LUO).

4. *Erythrina melanacantha* Harms

(*E. rotundato-obovata* Bak.f.)

Tree 5-12(20)m; bark corky, with large spine-tipped bosses. Branches spiny. Often flowers when leafless. Leaflets broadly elliptic, rounded or obovate, base cuneate or truncate, apex rounded or emarginate, 2-9 by 1.5-12cm, (sparsely) stellate-tomentose. Flowers red, in racemes 8-25cm long; corolla 5-7.5cm long. Fruit curved, 13-30 by 1.8-2.3cm, not constricted.

K147; 300-1300m; I, XII *

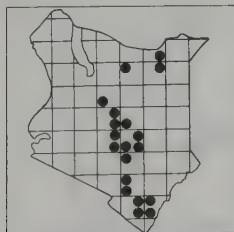
Acacia-Commiphora bushland or *Acacia-Combretum* bush/woodland; often near luggas.

Walensu, Walena (BOR), Mukunguu (EMB, KIK, MER), Waleena (GAB), Nyala-za-sibha (ILW), Woles (ORM), Mnorotshi (SAM), Bura (SOM). Wood used to make headrests.

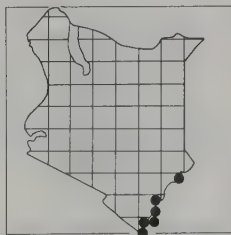
5. *Erythrina saculeuxii* Hua

(incl. *E. webberi* Bak.f., p.p)

Tree 10-20m, deciduous, with rounded crown; bark grey, smooth but ridged with corky spine-tipped bosses. Branches spiny. Sometimes flowers when leafless. Leaflets very broadly ovate, base cuneate or truncate, apex rounded or obtuse, 5-20 by 5-22cm, velvety-



Erythrina melanacantha



Erythrina saculeuxii

hairy when young but soon turning glabrous. Flowers red, with white wings, in dense racemes 6-13cm long; corolla 4-4.5cm long. Fruit woody, curved, 9-14 by 2-3cm, much constricted between the seeds.

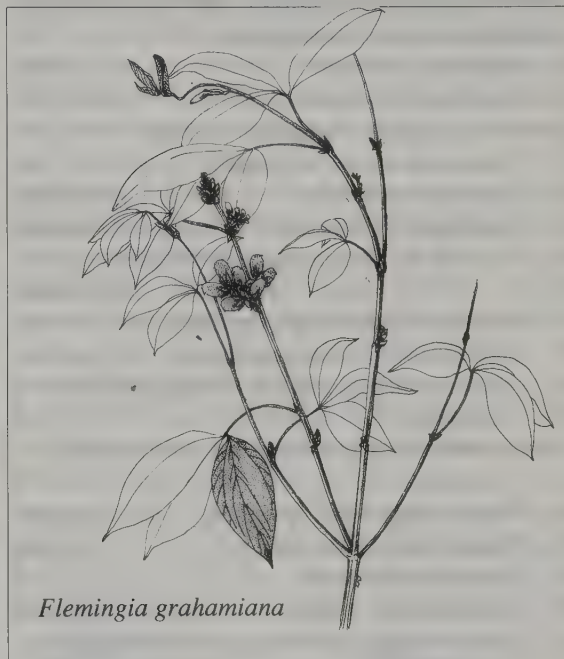
K7; 1-350m; VII, X-XII *

Wooded grassland or evergreen forest (remnants).

Mbambangoma, Mdundungoma (SWA), Vugu (BON), Mulungu (GIR), Mbembakoshi (BAJ), Boria, Buruu (BON), Mgalla (DUR). The wood is used to make drums on the Coast.

19. FLEMINGIA

Leaves digitately 3-foliolate, leaflets glandular. Inflorescence of fasciculate racemes. Fruit inflated.



Flemingia grahamiana

***Flemingia grahamiana* Wight & Arn.**

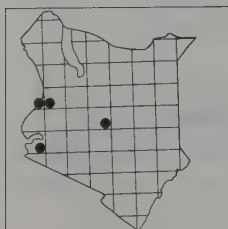
[*Moghania grahamiana* (Wight & Arn.) O. Ktze]

Woody herb or shrub 1-2m. Leaflets elliptic to obovate (terminal) or obliquely ovate (lateral), base cuneate to rounded, apex obtuse to acuminate, 2.5-15 by 1.3-7.5cm, (densely) pubescent and glandular. Flowers yellow-white, in very dense racemes to 2cm long; corolla 7-8mm long. Fruit orange-yellow, 9-12 by 6mm, leaving a stain on touching.

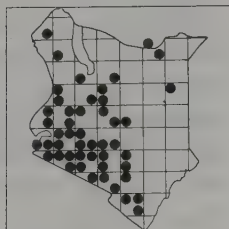
K345; 1500-2100m; VII, X-XII *

(Wooded) grassland.

Olanda (LUO). A dye plant.



Flemingia grahamiana



Indigofera arrecta

20. INDIGOFERA

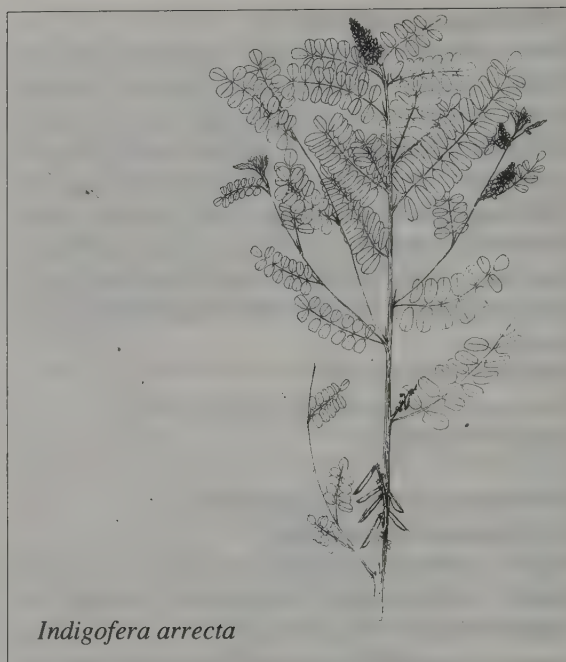
Leaves with pulvinus, usually imparipinnate, with or without stipels; hairs biramous. Inflorescence usually an axillary raceme. Fruit narrow.

- | | |
|---|---|
| 1. Leaflets 3 per leaf | 7. <i>I. trita</i> |
| * Leaflets 5-19 per leaf | 2 |
| 2. Stems sharply 3-angled or -winged | 3 |
| * Stems not angled or winged | 4 |
| 3. Leaflets 5-9 per leaf | 3. <i>I. garckeana</i> |
| * Leaflets 11-17 per leaf | 4. <i>I. homblei</i> |
| 4. Corolla 10-14mm long; fruit 4-6cm long | 2. <i>I. binderi</i> |
| * Corolla 4-8mm long; fruit 1-4cm long | 5 |
| * Corolla over 15mm long (Kora) | 8. <i>I. sp. nov.</i> |
| 5. Fruit distinctly square or 4-angled in cross-section | 6 |
| * Fruit not or only obscurely square in cross-section | 7 |
| 6. Fruit 3-5mm wide, spreading | 5. <i>I. lupatana</i> |
| * Fruit 1-2mm wide, deflexed | 7. <i>I. trita</i> |
| 7. Inflorescence sessile | 8 |
| * Inflorescence stalked | 6. <i>I. swaziensis</i> |
| 8. Stipules about 2mm long; calyx lobes shorter than the tube | <i>I. emarginella</i> (note: less than 1.5m high in Kenya) |
| * Stipules 2-9mm long; calyx lobes as long as the tube | 1. <i>I. arrecta</i> |

1. *Indigofera arrecta* A.Rich.

Shrub or woody herb 0.3-3.5m. Leaves 7-17-foliolate; leaflets narrowly elliptic, 2-10(18) by 1-4(6)mm, hairy beneath. Flowers red, in rather dense racemes to 2(5)cm long; corolla 3-4mm long. Fruit straight, 12-17 by 2-2.5mm, deflexed.

K1234567; 350-2650m; I-XII



Indigofera arrecta

Deciduous or evergreen (secondary) bushland, bushed or wooded grassland, forest margins; in dry areas often near luggas; often near (old) cultivation and on roadsides.

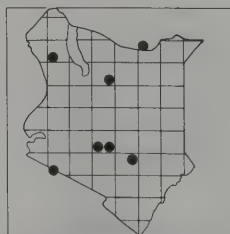
Muchugugu (KIK), Mindechwet (KIK), Omocheo (KIS), Lukeyu (LUH), Olanda (LUO), Eiyemiyem (MAA), Sarkelat (MAR), Kunyan, Atula (PKT), Khanho (REN), Sigir (SAM), Daraka (SOM), Emaret, Emartoi (TUR). Root infusion taken against worms.

2. *Indigofera binderi* Kotschy

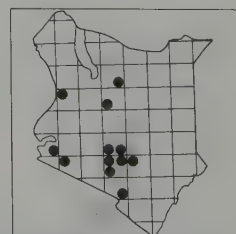
Shrub 1-2.5m. Leaves 5-9-foliolate; leaflets elliptic, 10-50 by 5-32mm, appressed-hairy. Flowers reddish, in racemes to 10cm long; corolla 10-14mm long. Fruit 40-60 by 2-3mm, erect or spreading.

K1246; 1000-1950m; I, IV, VII, IX, XII *

Semi-evergreen bushland, bushed or wooded grass-



Indigofera binderi



Indigofera garckeana

land, or dry forest.

Rogich (BOR), Emaret (TUR).

3. *Indigofera garckeana* Vatke

Shrub 0.6-2m with sharply 3-or 4-angled or -winged stems. Leaves 5-9-foliolate; leaflets elliptic, 20-60 by 8-30mm, appressed-hairy. Flowers reddish, in many-flowered racemes to 10cm long (25cm in fruit); corolla 10-15mm long. Fruit 40-60 by 2.5-3.5mm, erect or spreading.

K12(3)456; 1000-1950m; III-V, VII-IX, XII

(Wooded or bushed) grassland or bushland.

4. *Indigofera homblei* Bak.f. & Martin

ssp. *longiflora* Gillett

Woody herb or shrub 1-3m, with 3-angled or -winged stems. Leaves 11-17-foliolate; leaflets elliptic, 15-45 by 10-21mm, sparingly hairy. Flowers reddish, in many-flowered racemes to 16cm long; corolla 9-13mm long. Fruit 30-45 by 1.5-2mm, deflexed.

K23; 1850-2800m; VIII-XII *

Grassland, forest margins, heath zone.

Lweyi (LUH).

5. *Indigofera lupatana* Bak.f.

Shrub 0.5-4.5m. Leaves 7-11-foliolate; leaflets obovate or broadly elliptic, 4-20 by 3-12mm, appressed hairy. Flowers reddish or pinkish in many-flowered racemes 1-13cm long; corolla 3-4mm long. Fruit square to almost winged in cross-section, 30-40 by 3-5mm, spreading.

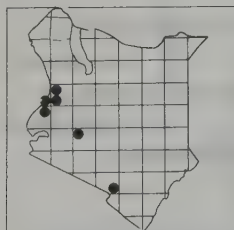
K1467; 250-2100m; II-XII (V, XI)

Evergreen or deciduous bushland, bushed grassland, secondary bushland.

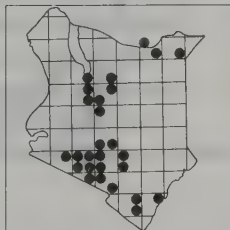
Huri (BOR), Enkoroye (MAA).

6. *Indigofera swaziensis* Bolus

Shrub 1-3(?)m. Leaves 9-19-foliolate; leaflets elliptic, 6-18 by 4-10mm, pubescent. Flowers pink to



Indigofera homblei



Indigofera lupatana

bright red, in many-flowered racemes to 10cm long; corolla 4-8mm long. Fruit 20-40 by 2.5-3mm, spreading or deflexed.

K1234567; 1200-2400m; I-XII (VI-VIII, XII)

Drier forest (margins), (semi-) evergreen bushland, bushed grassland, thickets and wooded grassland.

Mincheiwet (KIP), Enkoroy (MAA). Stems used for making arrowshafts by the Maasai.

Note: for purpose of this book I consider this an undivided, variable species.

7. *Indigofera trita* L.f.

Erect woody herb 0.1-2m or semi-climbing and then to 5m. Leaves with 3 (vars. *subulata* and *maffeii*) or 5-9 (var. *scabra*) leaflets; leaflets elliptic, apex apiculate, 6-35 by 4-17mm, sparsely hairy. Flowers pink or red, in many-flowered racemes to 27cm long (but usually shorter); corolla 4-5mm long. Fruit (almost) straight, 20-25 by 1-2mm, square or 4-angled in section, hanging (vars. *subulata* & *scabra*) or pointing outwards (var. *maffeii*).

K1234567; 1-2300m; I-XII

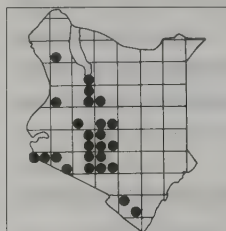
Secondary vegetation in many habitats, from forest margins to dry bushland.

Chepkitwalit (KIK), Kegoyogoyo (LUH). A leaf decoction is used against headache by the Luhya.

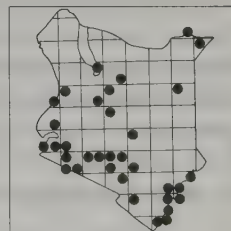
8. *Indigofera* sp. nov. (Gillett 21115)

In Kora N.P. on granite kopjes there is a shrub to 1.5m with large salmon-coloured flowers of 18mm long.

K7; 350-500m; V, XI-XII*



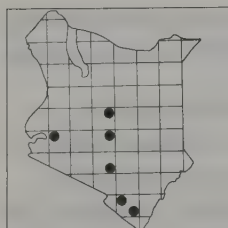
Indigofera swaziensis



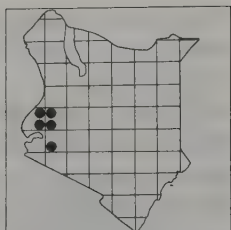
Indigofera trita

21. KOTSCHYA

Stems often with glandular hairs. Leaves pinnate, with alternate leaflets; leaflets asymmetric at the base. Stipules occasionally persistent, stipels absent. Inflorescence dense, the flowers reflexed, arranged in 2 rows. Fruits often with several joints, enclosed in the calyx.



Kotschya aeschynomenoides



Kotschya africana

- | | | |
|----|--|--------------------------------------|
| 1. | Leaves strongly recurved, with 8-18 leaflets | 3. <i>K. recurvifolia</i> |
| * | Leaves \approx straight, with 16-42 leaflets | 2 |
| 2. | Flowers white, blueish or purple; leaflets with glabrous edges | 1. <i>K. aeschynomenoides</i> |
| * | Flowers yellow; leaflets ciliate | 2. <i>K. africana</i> |

1. *Kotschy aeschynomenoides* (Bak.) Dewit & Duvign.

Erect or decumbent woody herb or shrub, 0.1-3m, aromatic. Stems very sticky. Leaves with 16-34 leaflets; leaflets 2-14 by 1-3.5mm, almost glabrous. Flowers white, pale blue or purplish, the petals to 12mm long; in dense axillary inflorescences with bracts. Fruit to 2.5mm long.

K14567; 1350-2350m; II, IV-VII, IX, XI *

Upland grassland and evergreen bushland, often in shallow soil pockets in rock and then in dense stands.

2. *Kotschyia africana* Endl.

var. *bequaertii* (De Wild.) Verdc.

Shrub or tree 1-5m. Stems glandular-hairy. Leaves with 20-42 leaflets; leaflets 2-10 by 0.5-3.5mm,, slightly falcate, glabrous or pubescent. Flowers yellow (-orange), often red-veined, 1-2cm long, in few-flowered inflorescences. Fruit 4-9-jointed, 1-4cm long, pubescent.

K35; 1550-2200m; I, X-XII *

Riverine or in swamps, sometimes locally common.

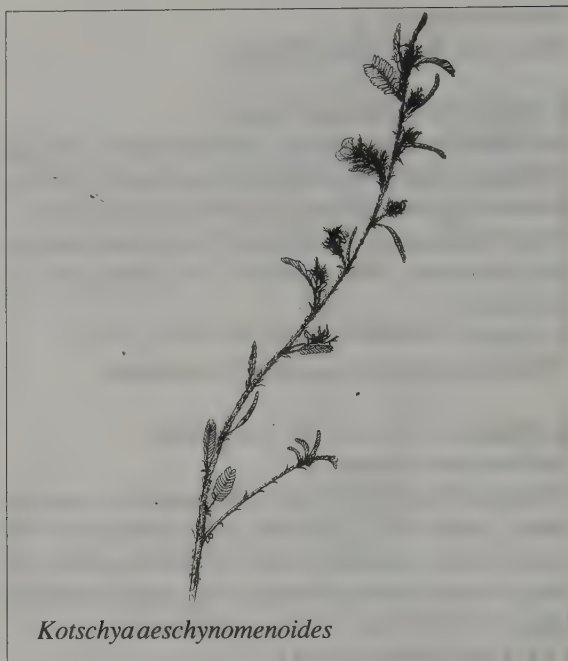
3. *Kotschya recurvifolia* (Taub.) F. White

ssp. keniensis Verdc.

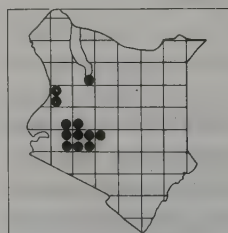
Shrub 0.3-2m with sticky stem; slightly aromatic. Leaves recurved, with 8-18 leaflets; leaflets falcate, 3-9 by 0.7-2.5mm, almost glabrous but ciliate. Flowers yellow, 1-1.5cm long, in few-flowered inflorescences. Fruit about 3mm long, pilose.

K123456; 2100-3000m; I-II, VII-XII

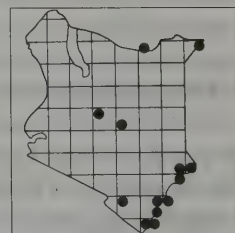
Evergreen bushland or heathland; endemic.



Kotschya aeschynomenoides



Kotschyia recurvifolia



Lonchocarpus bussei

22. LONCHOCARPUS

Leaves imparipinnate. Stipules often caducous. Stipels present. Leaflets opposite, the uppermost the larger. Inflorescences of axillary and terminal panicles. Fruits flattened, indehiscent.

1. Leaves with (1)3-5(7) leaflets; Wajir-Hagadera area **3. *L. kanurii***
* Leaves with 7-11 leaflets **2**
2. Calyx with appressed hairs (hairs 4-5mm); fruits glabrescent **1. *L. bussei***
* Calyx woolly-hairy (hairs 5-9mm); fruits usually densely hairy **2. *L. eriocalyx***

NOTE: *L. bussei* may flower when leafless.

1. *Lonchocarpus bussei* Harms*(L. laxiflorus* Guill. & Perr.)

Tree 3-15m; bark light grey, slightly furrowed, flaking to show yellow underbark. Leaves with 7-11 leaflets; leaflets obovate or elliptic, 4-9 by 2-4.5cm, glabrous to pubescent. Flowers often appearing before the leaves, mauve, 9-12mm long, in large many-flowered panicles 8-35cm long. Fruit pale brown, flat, elliptic-oblong, 8-13 by 1.2-2cm, 1-3 seeded, shortly pubescent.

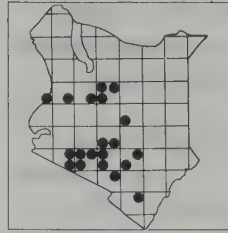
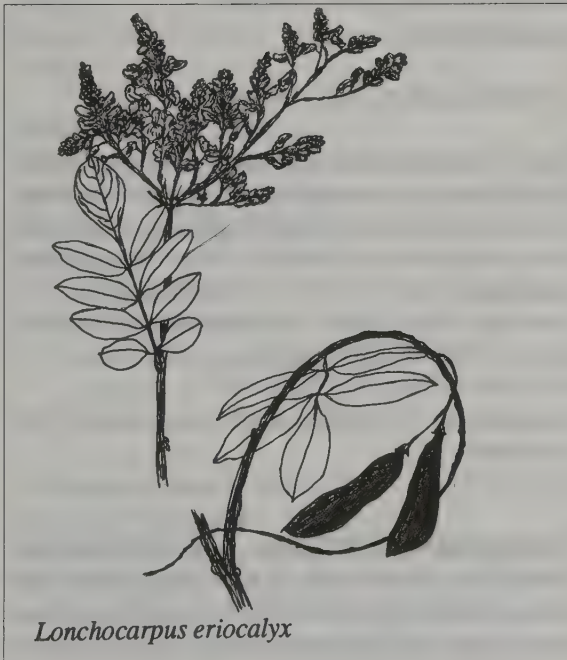
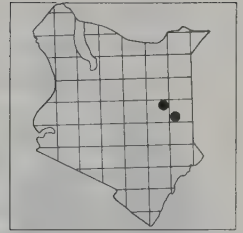
K147; 1-1100m; III-IV, VIII, X-XI (X-XI).

Wooded (palm) grassland, woodland, wooded bushland, thicket on dunes.

Msomari-Mwitu, Mwino (SWA), Galkash (BOR), Ina-Eh-Leh (BON), Mfumbiri (DIG), Mwenekanda (GIR), Muthingiri (MER), Mkochopa (SAN). Wood hard.

2. *Lonchocarpus eriocalyx* Harms

Shrub or tree 2-10(15)m; bark greybrown, fissured, flaking to show pale yellow underbark. Leaves with 7-11 leaflets; leaflets elliptic or obovate, 3-7 by 1.6-3.5cm, pubescent (at least beneath) to tomentose. Flowers mauve or reddish purple, 9-14mm long, in many-flowered panicles 10-35cm long. Fruit pale brown, flat, elliptic-oblong, 7-15 by 1.8-2.8cm, 1-3

*Lonchocarpus eriocalyx**Lonchocarpus kanurii*

seeded, densely pubescent.

K12467; 750-1700m; II-IV, VIII-XII

Wooded (*Combretum*) grassland, woodland, riverine thickets, dense (secondary) bushland.

Kinguuthe (KAM), Churutwa (PKT), Ilteroi (SAM). Bark used against stomachache by the Samburu; wood very hard, used for pestles by the Meru.

NOTE: an intermediate between this species and the closely related *L. bussei* was found near Lugard Falls in Tsavo (Hucks 257).

3. *Lonchocarpus kanurii* Brenan & Gillett**VULNERABLE**

Shrub or tree 3-8m; bark smooth, grey. Leaves with (1)3-5(7) leaflets; leaflets elliptic (the lowermost to suborbicular), 0.5-5 by 0.5-2.5cm, slightly puberulous beneath. Flowers purple, in pseudo-racemose inflorescences 5-9cm long; petals 12-13mm long. Fruit elliptic-oblong, 4.5-10 by 1.5-2.5cm, puberulous, indehiscent, 1-3-seeded.

K1; 150-250m; -* (In Somalia flowers in October).

Acacia-Commiphora bushland on sand.

23. MILLETTIA

Leaves imparipinnate, the leaflets opposite; stipels usually present; base of rachis pulvinate. Inflorescence paniculate (often looking like a raceme). Fruit dehiscent, flat.

1. Leaflets 5-9, sparsely puberulous; lianas (rarely trees) 2
- * Leaflets (7)11-21, either glabrous or densely pubescent; shrubs or trees 3
2. Indument appressed; leaf acumen to 12mm; Coastal 2. *M. lasiantha*
- * Indument spreading; leaf acumen to 6mm; Central Kenya 3. *M. leucantha*
3. Leaflets rounded or emarginate at apex 5. *M. tanaensis*
- * Leaflets acuminate at apex 4

4. Leaflets (almost) glabrous beneath; coastal, below 300m **6. *M. usaramensis***
- * Leaflets pubescent beneath; inland, above 1000m **5**
5. Stipels to 5mm long; inflorescence 20-35cm long; Taita **4. *M. oblata***
- * Stipels to 1mm long; inflorescence 7-15cm long; Central & North Kenya **1. *M. dura***
- Flowering when leafless: 1. *M. dura* (inflorescences to 1.5cm; petals 20-28mm), 5. *M. tanaensis* (inflorescences to 6cm long; petals 11-15 mm).

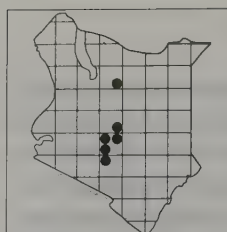
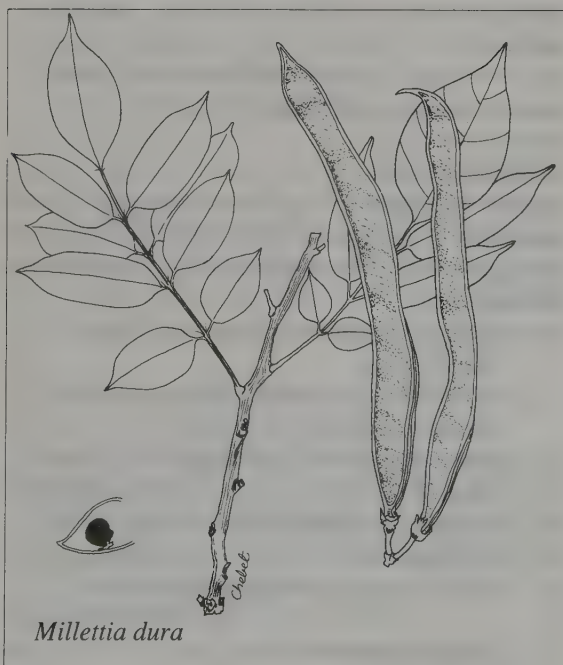
1. *Millettia dura* Dunn

Tree (or shrub) 3-9(13)m; bark light grey, scaly. Leaves with 15-19 leaflets; stipels 1mm, narrow; leaflets elliptic or ovate, 3-9 by 1.5-3cm, pubescent beneath. Sometimes flowers when leafless. Flowers lilac or purplish, in pseudo-racemes to 15cm long; petals 20-28mm long. Fruit oblong, 14-20cm by about 2cm, glabrescent.

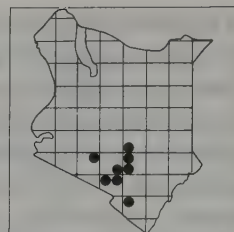
K14; 1200-2000m; II-IV, IX-XI *

Moist forest (edges). Also widely cultivated.

Muvanga (EMB), Muhatia, Mubatia (KIK), Mwanga (MER). Wood tough, suitable for axe- and hoe-handles.



Millettia dura



Millettia leucantha

2. *Millettia lasiantha* Dunn

Liana to 40m. Leaves with 7-9 leaflets; stipels to 6mm, very narrow; leaflets elliptic or slightly obovate, 5-9 by 2-4cm, sparsely pubescent beneath. Flowers mauve, in terminal panicles to 25cm long; petals 9-11mm long. Fruit oblong, to 8 by 2.5cm, beak turned down, densely hairy.

K7; 1-500m; II *

Coastal evergreen forest; only collected at Boni, Dzombo, Mwele Mdogo, Mangea and Mombasa.

Baihebe (BON).

3. *Millettia leucantha* Vatke **VULNERABLE**

Liana, scandent shrub or tree 1-12m; very much like *M. lasiantha*, but leaflets 5-7 per leaf; flowers white and blue to violet.

K46; 600-1500m; II-VI, VIII *

Semi-deciduous forest on rocky hills, or secondary bushland on rocky hills; endemic.

Mutwa (KAM).

4. *Millettia oblata* Dunn ssp. *teitensis* Gillett

VULNERABLE

Tree 3-21m; bark brown, corrugated. Leaves with 9-21 leaflets, the lowermost smallest; stipels to 5mm; leaflets elliptic-ovate or slightly obovate, 4-11 by 1.5-3cm, rusty-pubescent beneath. Flowers purple-blue, in axillary pseudoracemes to 35cm long; petals 1.5-2cm long. Fruit oblong, with downwards-curved tip, up to 10 by 2cm, glabrescent.

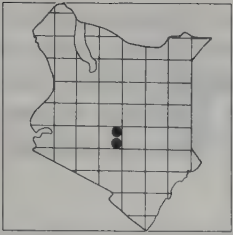
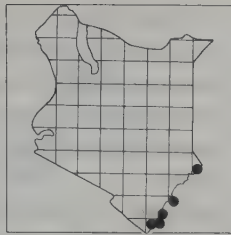
K7; 1400-1850m; II, VIII-IX, XI *

Endemic to Taita Hills moist evergreen forest (remnants).

Mwava (TAI).

5. *Millettia tanaensis* Gillett **VULNERABLE**

Shrub 2-3m. Leaves with 13-15 leaflets; stipels about 1mm; leaflets elliptic (the lowermost to almost orbicular), 2-4 by 1.5-2.5cm, sparsely hairy. Flowers purple,

*Millettia tanaensis**Millettia usaramensis*

often appearing before the leaves, in axillary pseudoracemes to 6cm long; petals 11-15mm long. Fruit oblong, 6-11 by about 1cm, glabrous or nearly so. K4; 700-900m; IV *. Endemic to Central Kenya. *Acacia-Commiphora* bushland on rocky ground, often near rivers.

Mwangua (EMB, KIK, MER).

6. *Millettia usaramensis* Taub.

ssp. *usaramensis* var. *usaramensis*

Shrub or tree 2.5-10m; bark grey. Leaves with 7-17 leaflets, elliptic to (lowermost) broadly ovate, 2-7 by 1.5-3.5cm, glabrous or nearly so. Flowers mauve or purple-blue in axillary pseudoracemes to 14cm long; petals 11-14mm long. Fruit oblong, to 11 by 1cm, pubescent, dehiscent and spiralling when open.

K7; 1-300m; III-X, XII

Wooded or bushed grassland and edges of drier coastal forests.

Mwino, Mtupa (SWA), Muvamva (DIG), Mhamua (GIR).

24. MUCUNA

Leaves pinnately 3-foliolate, with deciduous stipules and often with stipels. Inflorescences axillary. Fruits with thick, ribbed valves, covered in irritating bristles. Seeds large.

- | | |
|-------------------------------------|-----------------------|
| 1. Leaves glabrous | 1. <i>M. gigantea</i> |
| * Leaves pubescent | 2 |
| 2. Liana; leaves more than 6cm wide | 2. <i>M. poggei</i> |
| * Shrub; leaves 1.5-4cm wide | 3. <i>M. stans</i> |

1. *Mucuna gigantea* (Willd.) DC.

ssp. *quadrialata* (Bak.) Verdc.

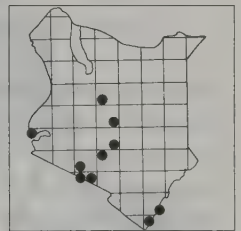
Liana 8-20m; bark brown, slash red. Leaflets ovate or elliptic, the laterals oblique, base rounded, apex acuminate with a mucro, 7-15 by 4-9cm, glabrous; venation palmate. Flowers greenish-cream, in hanging panicles

*Mucuna gigantea*

3-6cm long, usually from lower stems; corolla 3.5-4.6cm long. Fruit oblong, 8-15 by 3.5-5cm; margins with 2 wings; covered with irritant orange bristles.

K14567; 50-300(Coast), 850-1800m; I, VI-X, XII * Riverine forest or -remnants, on the coast also in moist forest (not necessarily near water).

Mtela (SWA), Ombasa-Aila (LUO). The seed is edible.

*Mucuna gigantea*

2. *Mucuna poggei* Taub.

Liana 10-30m. Leaves rhomboid, ovate or obovate, the lateral ones very asymmetrical, base rounded to subcordate, apex rounded or apiculate, 10-19 by 6-15.5cm, densely pubescent beneath. Flowers greenish-white or yellowish, in hanging racemes 6-32cm long; corolla 4-9cm long. Fruit round or oblong, 5-20 by 3.5-4cm, not winged, covered in orange irritant hairs.

- var. *poggei*

Corolla 6-9cm long. K3 (Kiminini), in riverine forest.

- var. *pesa* (De Wild.) Verdc.

Corolla about 5cm long. K5 (R. Kuywa, S. Elgon), in riverine forest.

3. *Mucuna stans* Bak.

Woody herb or shrub 1-2m. Leaflets ovate or elliptic, the lateral ones slightly oblique, base rounded, apex obtuse or emarginate, 2-8.5 by 1.5-4cm, finely pubescent (and margin slightly crenate). Flowers dark purple, almost black, in raceme-like panicles 2-8cm long; corolla 2.5-3.5cm long. Fruit oblong, 3.5-7 by 0.8-1.4cm, densely covered with black or golden irritable bristles.

K35; 1350-1800m; X, XII *.

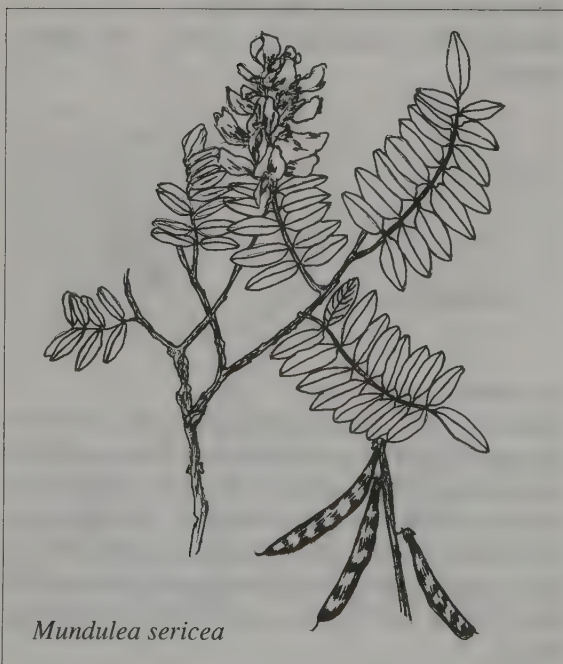
(Secondary) bushland or (wooded) grassland: Busia-Kitale area.

25. MUNDULEA

Leaves imparipinnate, leaflets (sub)opposite, without stipels. Flowers in terminal pseudoracemes.

Mundulea sericea (Willd.) A. Chev.

Shrub or tree 1-7.5m; bark grey or yellowish, smooth or fissured. Leaves with 7-17 leaflets; leaflets elliptic

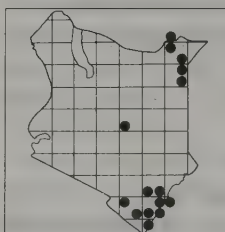


or slightly ovate, 1.5-6 by 1-2cm, appressed-pubescent (at least beneath). Flowers blue to purple, in pseudoracemes 3-9cm long; petals 17-22mm long. Fruit oblong, 4-9 by 0.5-0.8cm, acuminate, velvety, (almost) indehiscent, 4-9-seeded, often with persistent corolla.

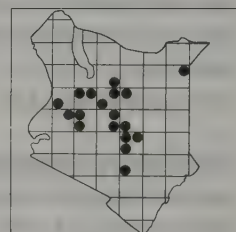
K1(46)7; 1-1350m; II-XII

Dry bushland, wooded grassland, coastal evergreen bushland, drier coastal (secondary) forest.

Mtupa-Wa-Pori (SWA), Muchobe (KAM), Lebbi Wandit (DOM). The bark is used as a fish poison by the Giriama.



Mundulea sericea

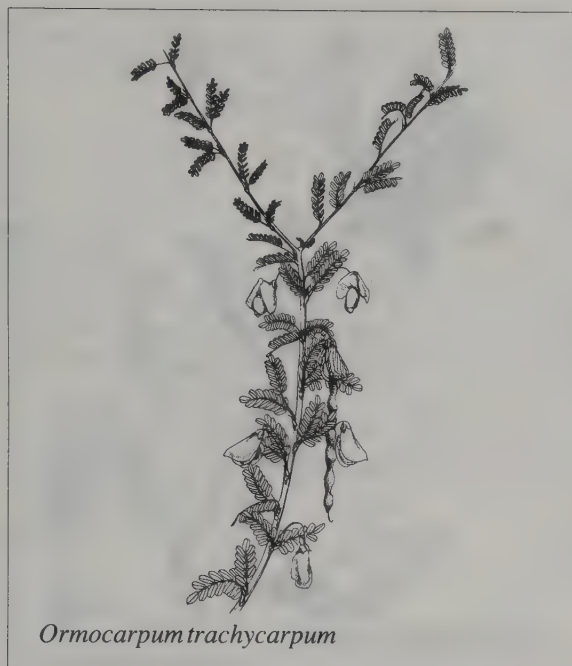


Ormocarpum keniense

26. ORMOCARPUM

Glandular hairs present, their bases remaining on branches as small warts. Leaves often in bunches on shortshoots, imparipinnate, without stipels but with stipules; leaflets alternate, minutely black-dotted above. Flowers in axillary racemes. Fruit breaking into 1-seeded indehiscent segments, warty.

- | | | |
|----|---|---------------------------|
| 1. | Fruit with persistent flower | 2 |
| * | Fruit without persistent flower | 5 |
| 2. | Fruit small, to 15mm long; hidden within flower | 3 |
| * | Fruit projecting beyond flower | 4 |
| 3. | Leaflets 11-19 per leaf, 1.5-2mm wide | |
| | | 1. <i>O. keniense</i> |
| * | Leaflets 7-13 per leaf, 3-7mm wide | 2. <i>O. kirkii</i> |
| 4. | Leaflets 7-11 per leaf; fruit strongly curved | |
| | | 3. <i>O. muricatum</i> |
| * | Leaflets 9-17 per leaf; fruit straight | |
| | | 5. <i>O. trachycarpum</i> |
| 5. | Leaflets 4-7 by 2-3.5mm; fruit with long (to 7mm) stiff hairs | 6. <i>O. trichocarpum</i> |
| * | Leaflets 6-20 by 4-10mm; fruit with short (to 1mm) prickles | 4. <i>O. sennoides</i> |



1. *Ormocarpum keniense* Gillett

Shrub 1-4m, occasionally a small tree. Leaves in tufts, with 11-19 leaflets; leaflets elliptic, 3-8 by 1.5-2mm, with dark-coloured veins beneath, slightly hairy. Flowers yellowish pink with red-purple veins, 1-2 together; petals 13-18mm long. Fruit to 15mm long, hidden in the persistent dry flower.

K12347; 350-1400m; III-VI, VIII, XII (V).

Dry bushland, especially with *Commiphora*.

Butiye (BOR), Makaran (PKT).

2. *Ormocarpum kirkii* S. Moore

Shrub or tree 0.5-7.5m; bark rough, grey. Leaves often bunched on shortshoots, with 7-13 leaflets; leaflets elliptic or obovate, 5-12(20) by 3-7(10)mm, slightly hairy beneath. Flowers pinkish purple, 1-3 together; petals 12-19mm long. Fruit coiled within the persis-

tent flower, often insect-attacked.

K1467; 1-1600m; I-VI, IX, XI-XII (IV, XII).

Dry bushland, coastal bushland, bushed grassland.

Mkitaji (SWA, DIG, GIR), Mpotsho Ndovu (BON), Chitadzi (DIG), Muthingii (KAM), Lebi Sauwer (SOM). Crushed leaves are applied externally against headache (Digo, Boni). Makes good walking sticks.

3. *Ormocarpum muricatum* Chiov.

Shrub 1-3m. Leaves usually tufted, with 7-11 leaflets; leaflets elliptic, 4-7 by 2.5-3.5mm, glabrous or sparsely hairy. Flowers yellow-green with brown or red veins, 1-2 together; petals 11-16mm long. Fruit strongly curved, projecting beyond persistent flower.

K1; 200-750m; V-VI, VIII *.

Dry bushland or woodland/bushland.

Lebi Sauwer (SOM), Butiye (BOR).

4. *Ormocarpum sennoides* DC.

ssp. *zanzibaricum* Brenan & Gillett

Shrub or small tree 1-2.5(5)m. Leaves rarely bunched, with 6-17(24) leaflets; leaflets elliptic or slightly obovate, 6-20 by 4-10mm, glabrous. Flowers yellow with red or purple veins, 2-13 per raceme; petals 12-16mm long. Fruit oblong, segmented, to 9 by 0.6cm, covered in prickles; corolla drops in fruit stage.

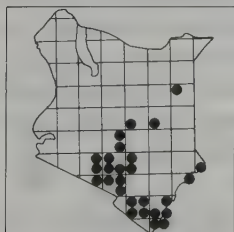
K7; 1-500m; IV-V, VII-VIII, XI

Forest (margins), closed coastal bushland, *Brachystegia* woodland.

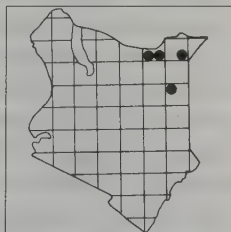
Mkitaji (SWA).

5. *Ormocarpum trachycarpum* (Taub.) Harms (*O. mimosoides* of KTS)

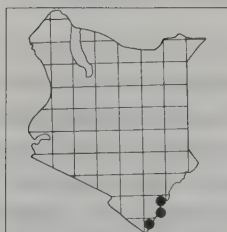
Shrub or tree 1-5(7.5)m; bark redbrown and scaly (old?) or yellowish and peeling (young?). Branches warty, leaves tufted on dense shortshoots, with 9-17 leaflets; leaflets elliptic, 5-15 by 2.5-6mm, pubescent beneath and black-veined when dry. Flowers greenish cream to rosy orange, veined with red, 1-4 together;



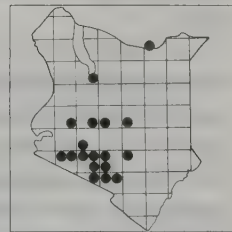
Ormocarpum kirkii



Ormocarpum muricatum



Ormocarpum sennoides



Ormocarpum trachycarpum

petals 14-18mm long. Fruit more or less straight, up to 6.5cm long, pubescent and warty, with persistent flower.

K1346; 550-2100m; I-IV, VII-IX, XI-XII

Wooded or bushed grassland, dry bushland; especially in rocky places.

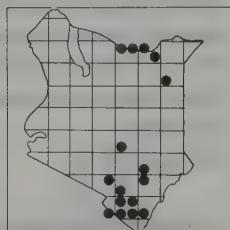
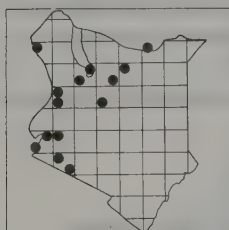
Mutiye (BOR), Koipeyot-ap-Tirita (KIP), Enkike-Empan (MAA).

6. *Ormocarpum trichocarpum* (Taub.) Engl.

Shrub or tree 1-5m, often with white twigs. Leaves usually in tufts, with 7-15 leaflets; leaflets elliptic, 4-7 by 2-3.5mm, more or less pubescent beneath, midrib dark beneath. Flowers mauve-blue or cream with blue veins, 1-3 together; petals 12-17mm long. Fruit oblong, straight, 3-5cm long, covered in stiff golden-brown hairs to 7mm long; corolla drops in fruit stage. K1256; 750-1800m; I, IV-VIII, X-XI *

Dry or semi-evergreen bushland, wooded grassland, bushed grassland, especially on (eluvial) slopes.

Butiye (BOR), Buutiyye (GAB), Det (LUO), Engese-Mbaus (MAA), Lekweita (SAM), Eseperai, Ethigirait (TUR). Boiled roots used to alleviate pregnancy cramps by the Maasai.



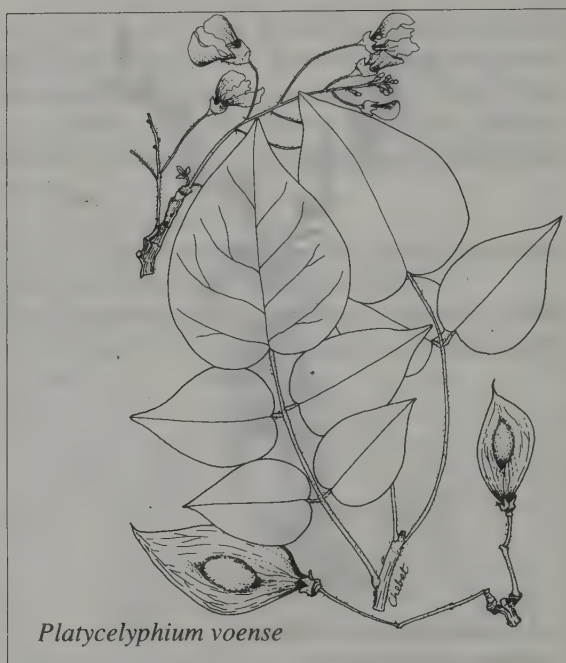
Ormocarpum trichocarpum *Platycelyphium voense*

27. PLATYCELYPHIUM

Leaves imparipinnate with small stipules and no stipules; lower leaflets alternate, upper ones more opposite, glandular-punctate. Flowers in terminal and axillary racemes. Fruit flat, papery, indehiscent, 1-seeded.

Platycelyphium voense (Engl.) Wild

Tree 3-9m; bark in older trees yellow-green and peeling (like *Commiphora*). Leaves on short shoots, with (1)3-7 leaflets; leaflets ovate, base cordate or rounded, apex acuminate, 4-10 by 3-7cm, glabrous or slightly hairy, sticky when young. Flowers appearing before



the leaves, mauve-blue, in 3-13cm long racemes; corolla 1.5-2cm long. Fruit elliptic, 5-7.5 by 2-4cm, papery, slightly hairy.

K1467; 150-1050m; II-IV, IX-X (III)

Scattered in *Acacia-Commiphora* bushland. Flowers simultaneously over large areas, but not every year. Sottawesa (BOR), Mwai (KAM), Ergadadamai (MAA), Muklsatawo (ORM), Saban-saida (SOM).

28. PSEUDARTHRIA

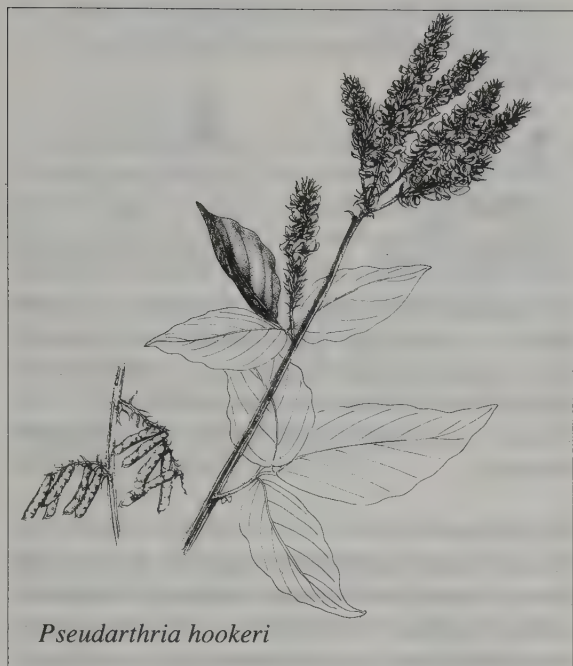
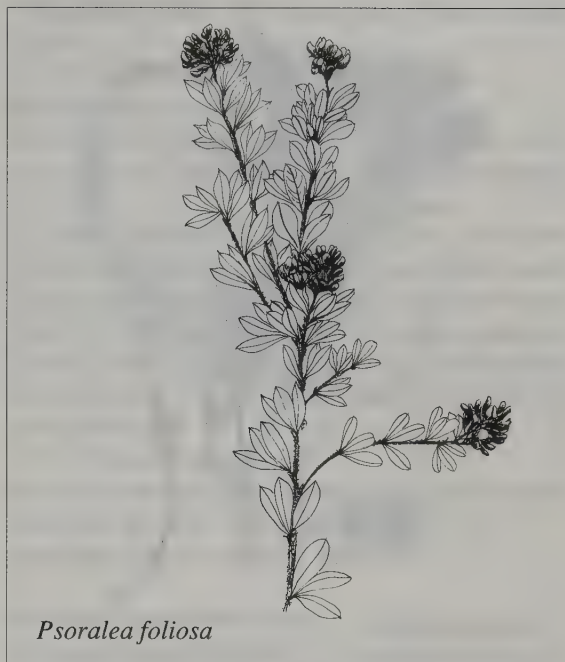
Leaves pinnately 3-foliolate; stipules and stipels present. Inflorescence axillary and terminal, branched, racemose. Corolla small. Fruit flattened, dehiscent, 3-12-seeded.

Pseudarthria hookeri Wight & Arn. var. *hookeri*

Woody herb or shrub 0.5-3m, with ribbed stems. Leaflets elliptic or obovate, base cuneate or rounded, apex rounded to acute, margins entire or crenulate, 2-17 by 1-10cm, roughish above, velvety beneath. Flowers white, pink, mauve or purple, in rather dense inflorescences to 35cm long; petals 6-8mm long. Fruit straight, oblong, 1-3.8 by 0.3-0.4cm, hairy.

K34567; 1-2200m; I-II, IV-XII

Grassland, wooded grassland, bushed grassland, old cultivations, swampy sites.

*Pseudarthria hookeri**Psoralea foliosa*

Mnyamata (SWA), Cheprorkoriet (KIP), Siranyende (LUO), Enjada-Narok (MAA).

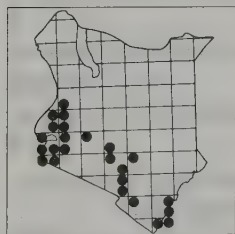
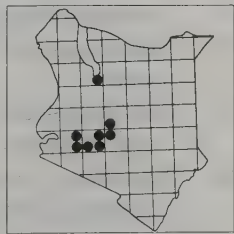
29. PSORALEA

Leaves gland-dotted, pulvinate, 3-foliolate; stipules adnate to petiole. Flowers in dense terminal, subcapitate racemes.

Psoralea foliosa Oliv.

Woody herb or shrub, 0.5-3m, aromatic. Leaves crowded, gland-dotted; leaflets slightly obovate, base cuneate, apex apiculate, 1.5-4 by 0.5-1.5cm, slightly pubescent. Flowers blue (wings sometimes white), in dense 'heads' half-hidden by the leaves; petals 6-10mm long. Fruit oval, flat, about 5 by 3mm, 1-seeded, usually hidden in the persistent calyx.

K1346; 2100-2800m; I-II, V-XII (XI)

*Pseudarthria hookeri**Psoralea foliosa*

Upland forest clearings and -margins, secondary bushland (replacing forest).

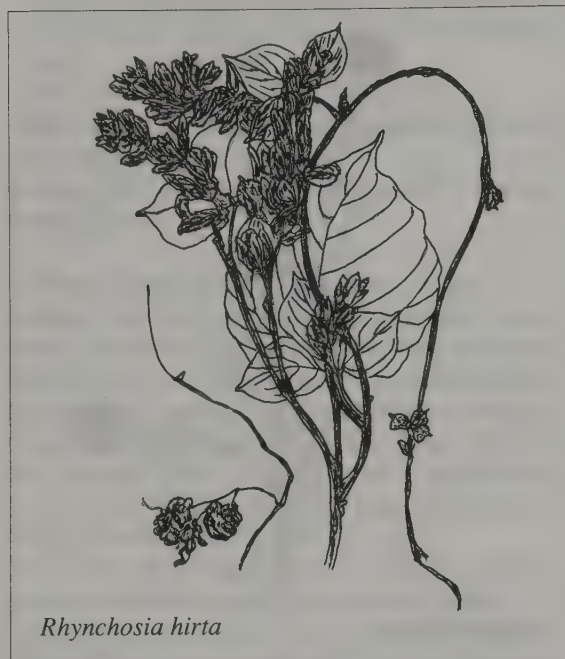
Ruyuyu (KIK), Olesongoyo (MAA).

30. RHYNCHOSIA

Leaves pinnately 3-foliolate; leaflets with conspicuous gland-dots beneath; stipules present, stipels small. Inflorescences various. Fruit flattish, frequently glandular.

- | | | |
|----|---|-------------------------------|
| 1. | Corolla 11-16mm long; seeds redbrown; | |
| | Western Kenya | 3. <i>R. resinosa</i> |
| * | Corolla more than 18mm long, or Coastal plants; seeds dark blue | 2 |
| 2. | Corolla 10-15mm long; leaflets glabrous or pubescent beneath | 1. <i>R. congensis</i> |
| * | Corolla 18-20mm long; leaflets velvety beneath | 2. <i>R. hirta</i> |

1. *Rhynchosia congensis* Bak. ssp. *orientalis* Verdc. Climber or trailer to 6m. Leaves aromatic; leaflets 3, the terminal broadly ovate, the laterals obliquely ovate, base subcordate, apex acute to acuminate, 3.5-12.5 by 2.5-10.5cm, glabrous to pubescent and glandular beneath. Flowers yellow with red veins, in axillary racemes to 40cm long; petals 10-15mm long. Fruit usually twisted, 2-2.5 by 0.5-0.7cm, pubescent, with



persistent flower; seeds dark blue, remaining attached to fruit.

K7; 1-50m; IX, XI*

Collected 4 times before 1945, in coastal grassland/bushland at Mida and Malindi.

Mfiri-Mwitu (SWA).

2. *Rhynchosia hirta* (Andr.) Meikle & Verdc.

Liana 2-10m. Leaflets 3, ovate, base rounded or slightly subcordate (oblique in laterals), apex acuminate, 4-18 by 4-14cm, velvety beneath. Flowers greenish-cream to yellow, with red or purple veins, in racemes to 35cm long; petals 18-22mm long. Fruit twisted, 1.5-3 by 0.3-0.7cm, pubescent; seeds dark blue, remaining attached to fruit; flower persistent in fruit.

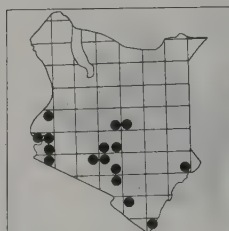
K34567; 1-450 (coast), 1150-1850m (inland); I-II, IV-IX, XI-XII

Bushed- or wooded grassland, forest margins.

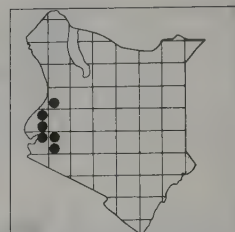
Manguyangiat (KIP), Olmanguyu (MAA), Marigo Ya Ngondi (TAI).

3. *Rhynchosia resinosa* (A. Rich.) Bak.

Liana to 7.5m or shrub to 1.5m. Leaflets 3, broadly ovate, base rounded, apex acuminate, 1.5-7.5 by 1-7.5cm, gland-dotted and pubescent. Flowers yellow,



Rhynchosia hirta



Rhynchosia resinosa

the standard often veined red, in racemes to 20cm; petals 11-16mm long. Fruit oblong, 1.5-2.5 by 0.4-0.6cm, glandular and slightly hairy; seeds redbrown. K(2)35; 1500-2250m; I, V, VIII, IX-XII *
Wooded grassland, ravine forest, semi-evergreen bushland.

31. SESBANIA

Stems, when cut, often producing a dark juice. Leaves pinnate, usually with stipules and stipels. Flowers in axillary racemes. Corolla yellow. Fruit long, dehiscent, 8-50-seeded. Usually occurring in wet sites.

- | | |
|--|------------------------|
| 1. Young branches and leaflets pubescent | 2 |
| * Young branches and leaflets glabrous or nearly so | 4 |
| 2. Leaflets 8-16 per leaf (inland) | 3. <i>S. goetzei</i> |
| * Leaflets 20-70 per leaf | 3 |
| 3a. Flower 5-8mm long | 7. <i>S. sericea</i> |
| *b. Flower 13-18mm long | 8. <i>S. sesban</i> |
| *c. Flower 24-33mm long | 9. <i>S. speciosus</i> |
| 4. Leaflets 8-18 per leaf; flowers 1-2 together | 4. <i>S. keniensis</i> |
| * Leaflets more than 20 or, if less, than more than 4 flowers together | 5 |
| 5. Flowers 10-12mm long, leaflets 50-110 (coast & lower Tana) | 1. <i>S. bispinosa</i> |
| * Flowers more than 15mm long, or if 13-15, then inland species | 6 |
| 6. Flowers 20-28mm long (Kitale area, 1800-1900m) | 2. <i>S. dummeri</i> |
| * Flowers less than 18mm long, or found at altitudes below 1000m | 7 |
| 7. Flower standard 12-14mm wide; fruit square in section | 6. <i>S. quadrata</i> |
| * Flower standard 17-21mm wide; fruit round or oval in section | 8 |
| 8. Stipules to 12 by 4mm, persistent; leaf rachis glabrous; fruit septa 9-10mm apart | |
| | 5. <i>S. macrantha</i> |

- * Stipules to 7 by 1mm, caducous; leaf rachis usually hairy; fruit septa 4-6mm apart

8. *S. sesban*

1. *Sesbania bispinosa* (Jacq.) W.F.Wight

Slightly woody herb 0.5-3m, unbranched or almost so, sparsely spiny on stem and leaf rachis (spines about 1mm). Leaflets 50-110 per leaf, up to 20 by 3mm, glabrous or almost so. Flowers yellow, purple-spotted, in 9-12-flowered slender racemes; petals 10-12mm long. Fruit curved, to 25 by 0.3cm.

K7; 1-400m; I, V-VI, VIII-IX, XII *

Damp sites, hollow in rocks, tidal flats; also a weed in rice fields. May form dense stands.

Mrindazia, Msalia-Nyuma (SWA)

2. *Sesbania dummeri* Phil. & Hutch.

Softly woody shrub or tree to 5m; stems, rachis and inflorescence stalk sometimes minutely spiny. Leaflets 20-48 per leaf, 10-28 by 4-6mm, glabrous. Flowers yellow, purple-spotted, in several-flowered racemes; petals 20-28mm long. Fruit 20-30 by 0.4cm.

K3; 1800-1900m; X-XII *

Swamps. Only collected near Moi's bridge and Mt. Elgon.

3. *Sesbania goetzei* Harms ssp. *goetzei*

Shrub or tree 1-8m. Leaflets 8-16 per leaf, 10-16 by 3-7mm, pubescent. Flowers yellow, purple-spotted, in 1-2(4)-flowered racemes; petals 18-26mm long. Fruit up to 26 by 0.4cm.

K36; 1050-1900m; III-XI *

Shores of alkaline lakes (L. Nakuru, L. Elmenteita, L. Naivasha, L. Amboseli). May form dense stands.

4. *Sesbania keniensis* Gillett

Soft-wooded shrub or tree 0.5-7.5m. Branches rarely somewhat spiny. Leaflets 8-18(-26) per leaf, 8-18 by 3-5mm, glabrous. Flowers yellow with purple spots,

1-2 together; petals 20-25mm long. Fruit to 25 by 6mm.

K3456; 1200-2500m; I-XII (IX-XI)

Riverine and in marshy areas.

Mwethia (KIK), Koibeyot (KIP), Engoigileboi, Oloin-galani (MAA). Leaves used as soap (Kipsigis, Maasai).

5. *Sesbania macrantha* Phil. & Hutch. var. *macrantha*

Soft-wooded shrub or tree 1-4(6)m, usually with small (1mm) prickles on stem, inflorescence and leaf-rachis. Leaflets 20-100 per leaf, 10-24 by 3-6mm, glabrous. Flowers yellow with purple spots, in 6-20-flowered racemes; petals 13-17mm long. Fruit curved, up to 30 by 0.4-0.5mm.

K45; 1200-1900m; I, IX-X *

Riverine & moist swampy sites; occasionally used as shade tree in coffee plantations.

Mwethia (KIK), Ol-Nisereri (MAA).

6. *Sesbania quadrata* Gillett

Soft-wooded herb (annual) 1-3.5m; sometimes with minute prickles on leaf rachis. Leaflets 12-60 per leaf, 10-20 by 2.5-4mm, glabrous or nearly so. Flowers yellow with purple spots, in 5-12-flowered racemes; petals 15-20mm long. Fruit slightly curved, 10-20 by 0.2-0.3cm, almost square in cross-section.

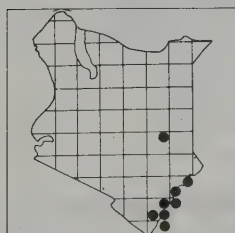
K134567; 100-1300m; I-II, IV-IX, XII (IV-VI)

Temporarily flooded places, such as grassy river plains, black cotton depressions, waterhole edges; also on alluvial soils. May form dense stands.

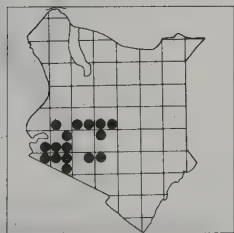
Kurru (BOR), Mochobwe (ILW), Osawo (LUO), Enkoyiankalani (MAA), Lebier (SOM).

7. *Sesbania sericea* (Willd.) Link

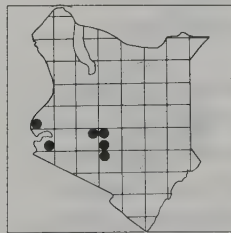
Slightly woody herb 0.5-3m; prickles on stem tiny. Leaflets 40-50 per leaf, 10-30 by 3-7mm, pubescent. Flowers yellow with purple spots, in 2-6-flowered racemes; petals 5-8mm long. Fruit straight or slightly curved, up to 16 by 0.4cm.



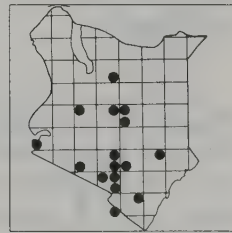
Sesbania bispinosa



Sesbania keniensis



Sesbania macrantha



Sesbania quadrata



K17; 1-600m; I, III, VI-VII, X *

Marshy ground.

Kinuka-Muhondo (GIR), Nakaleso (TUR).

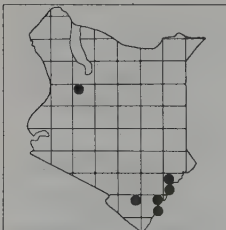
8. *Sesbania sesban* (L.) Merrill var. *nubica* Chiov.
(*S. pubescens* of KTS)

Soft-wooded tree 1-9m. Leaflets 20-50 per leaf, 10-15 by 3-4mm, glabrous or somewhat pubescent beneath. Flowers yellow with purple spots, in 4-20-flowered racemes to 15cm long; petals 13-18mm long. Fruit straight or slightly curved, up to 30 by 0.4cm.

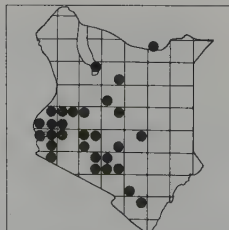
K134567; (1)350-1900m; I-IV, VI-XII

Riverine, near (hot) springs, on lake edges; at alkaline lakes usually near fresh water stream inlets. May occur in dense stands.

Osaosao, Oyieko (LUO), Daisa (BOR), Munyongo (KAM), Musungiri (KIK), Omosabwabi (KIS), Lohori



Sesbania sericea



Sesbania sesban

(LUH), Loiyangalani (SAM), Kinuka-Muhondo (GIR). Used as a temporary shade tree in coffee and tea plantations.

9. *Sesbania speciosa* Taub.

Herb or shrub 1-3m. Leaflets 32-70 per leaf, 10-30mm, pubescent. Flowers yellow with purple spots, in 8-20-flowered racemes; petals 24-33mm long. Fruit slightly curved, up to 30 by 0.8cm.

K7; 1-60m; III, VII *

Riverine, in swamps, or ditches: Tana delta.

32. SOPHORA

Leaves imparipinnate with opposite leaflets. Flowers in terminal or axillary racemes; pedicels often swollen or jointed near the top. Stamens free or nearly so. Fruit moniliform, dehiscent or not, 1-14-seeded.

1. Leaflets cuneate at base; fruit 1-3-seeded

1. *S. inhambanensis*

- * Leaflets rounded at base; fruit 4-8-seeded

2. *S. tomentosa*

1. *Sophora inhambanensis* Klotzsch

Shrub 1-2m, with nearly all parts silvery or golden pubescent. Leaves with 11-17 leaflets; leaflets elliptic to slightly obovate, 2-4 by 0.7-1.5cm, the terminal



Sophora inhambanensis

ones largest. Flowers yellow, in many-flowered terminal racemes; petals 17-22mm long. Fruit 1-3 (-5)-seeded, 4-7 by 0.5-1cm, much narrowed between the seeds.

K7; near sealevel; II, VIII-IX *

Sandy foreshores, between Lamu and Malindi (but may occur further south!).

Mnuka-Vundo, Mbaazi-Mwitu (SWA).

2. *Sophora tomentosa* L. ssp. *tomentosa*

Shrub 1-3m, with nearly all parts densely tomentose, although the upper side of the leaf becomes glabrous. Leaflets 11-15 per leaf, broadly elliptic, up to 4 by 3cm. Flowers yellow, in terminal racemes to 25cm long; petals 14-20mm long. Fruit 4-8-seeded, 5-13 by 0.5-1cm, much narrowed between the seeds.

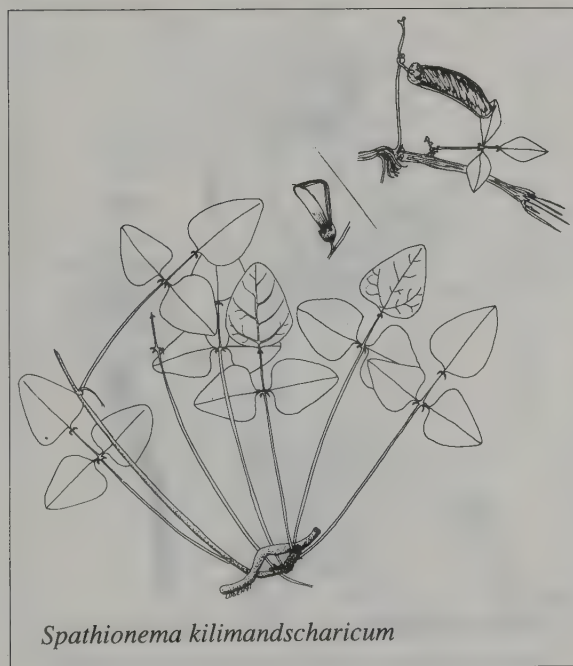
K7; near sealevel; IV-V, XII *

Sandy foreshores; found in Mombasa area.

Mtupa (SWA). Used for poisoning fish.

33. SPATHIONEMA

Leaves pinnately 3-foliolate; stipules and stipels present. Inflorescence axillary, pseudo-racemose. Rachis swollen at base of pedicels. Fruit oblong.

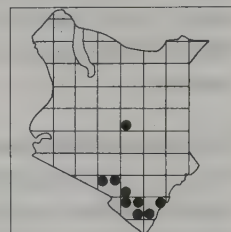


Spathionema kilimandscharicum Taub.

Woody climber to 10m. Leaves often in bunches on short branchlets; leaflets broadly ovate to rhomboid, base cuneate to truncate, apex rounded or emarginate, 1-5.5 by 1-5cm, almost glabrous. Flowers appearing before the leaves, greenish-cream to mauve to purple, on a 4-10cm long pseudoraceme; petals 17-30mm long. Fruit oblong, slightly falcate, with apiculate apex, 3-4.2 by 1-1.7cm, glabrous.

K467; 250-1000m; I-II, V, VIII-XI (VIII)

Mixed *Acacia-Commiphora* bushland.



*Spathionema
kilimandscharicum*

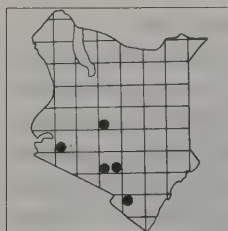
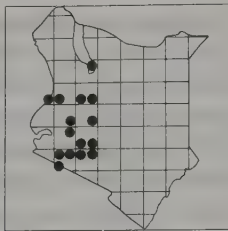
34. TEPHROSIA

Leaves usually imparipinnate, without stipels. Corolla usually reddish-purple. Pod flattened, usually dehiscent and often explosively so!

1. Leaflets 1-2cm wide; flowers white; fruit 10-15 by 1.2-1.6cm 5. *T. vogelii*
- * Leaflets 0.2-1.5cm wide; flowers pink to purple; fruit up to 9 by 0.6cm 2
2. Leaflets more than 5 x as long as wide; stipules about 2mm long 2. *T. emeroides*
- * Leaflets less than 4 x as long as wide; stipules more than 5mm long 3
3. Leaflets dark green above, white-pubescent beneath; stipules to 13 by 8mm 1. *T. aequilata*
- * Leaflets more or less the same colour on both sides; stipules less than 2mm wide 4
4. Leaflets 1-3.5 by 0.4-0.9cm; inflorescence interrupted by gaps 3. *T. interrupta*
- * Leaflets 3-5 by 0.7-1.5cm; inflorescence dense and continuous 4. *T. nyikensis*

1. *Tephrosia aequilata* Bak.

Shrub 1-3m. Leaflets 13-21 per leaf, elliptic, base cuneate to subcordate, apex rounded or apiculate, 1.5-5 by 0.6-1.5cm, dark green and almost glabrous above, densely whitish-pubescent beneath. Flowers mauve

*Tephrosia aequilata**Tephrosia emeroides*

or purple in dense terminal, almost sessile, almost round, inflorescences; petals 13-17mm long. Fruit about 3-4 x 0.5-0.6cm, densely tomentose, beaked. K4567; 1650-2200m; II, VI, VIII, X-XI *

On rocky hills, usually in grassland or heathzone near summit.

2. *Tephrosia emeroides* A.Rich.

Woody herb or shrub 0.5-2.5m. Leaflets 5-13 per leaf, narrowly elliptic, base cuneate, apex rounded and/or apiculate, 2-4.5 by 0.2-0.7cm, appressed-hairy beneath. Flowers pink or mauve, in lax terminal pseudoracemes; petals 10-14mm long. Fruit slightly upcurved, 4-7 by 0.3-0.5cm, appressed golden-hairy. K12346; (900)1500-2000m; I-XI

(Semi-) evergreen bushland or bushed/wooded grassland, often on lava or rocky soils.

Mindechwet (KIP), Eimim (MAA), Imim (SAM).

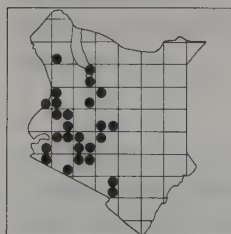
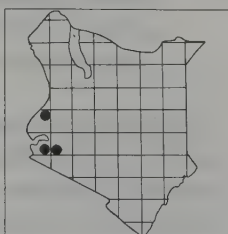
3. *Tephrosia interrupta* Engl. ssp. *interrupta*

Woody herb or shrub 1-3m. Leaflets 9-21 per leaf, elliptic or obovate, base cuneate, apex rounded to apiculate, 1-3.5 by 0.4-0.9cm, pubescent beneath. Flowers reddish-purple or magenta, in lax pseudoracemes; petals 14-21mm long. Fruit slightly curved upwards, 3-9 by 0.4-0.6cm, densely tomentose.

K1234567; (600) 1600-2800m; I-XII (XI-I)

Cedar forest margins or -clearings, rocky evergreen bushland or bushed grassland.

Mukiti, Kithuthia (KIK), Kiguguria (KIP), Kiguguna

*Tephrosia interrupta**Tephrosia nyikensis*

(LUM), Eimiyem (MAA), Emaret (TUR).

4. *Tephrosia nyikensis* Bak.

ssp. *victoriensis* Brummitt & Gillett

Soft-wooded herb to 2m. Leaflets 15-21, elliptic, base cuneate, apex rounded and apiculate, 3-5 by 0.7-1.5cm, appressed-pilose beneath. Flowers mauve or magenta, in rather dense, long-stalked terminal pseudoracemes; petals 15-16mm long. Fruit slightly upcurved, to 8 by 0.5cm, sparsely hairy.

K35; 1650-1750m; IX-X *

(Moist) grassland. Last collected in 1949.

Kiguguria (KIP), Mingitse (LUH).

5. *Tephrosia vogelii* Hook.f.

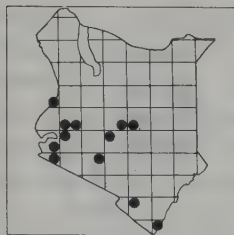
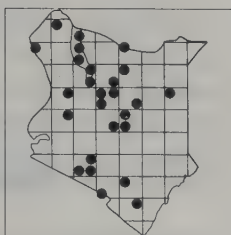
Soft-wooded herb 1-4m. Leaflets 13-29 per leaf, elliptic or slightly obovate, base cuneate, apex rounded or apiculate, 2.5-5 by 1-2cm, silky-tomentose. Flowers white (rarely violet) in dense terminal (axillary) stalked pseudoracemes; petals 20-25mm long. Fruit straight, 10-15 by 1.2-1.6cm, densely tomentose.

K34567; 300-2150m; III-V, VII-XI *

Grassland, bushland, old cultivations.

Mtupa, Mibaazi (SWA, DIG), Musoko (TAI). Used as a fish poison; often planted in hedges; possibly not native to this country.

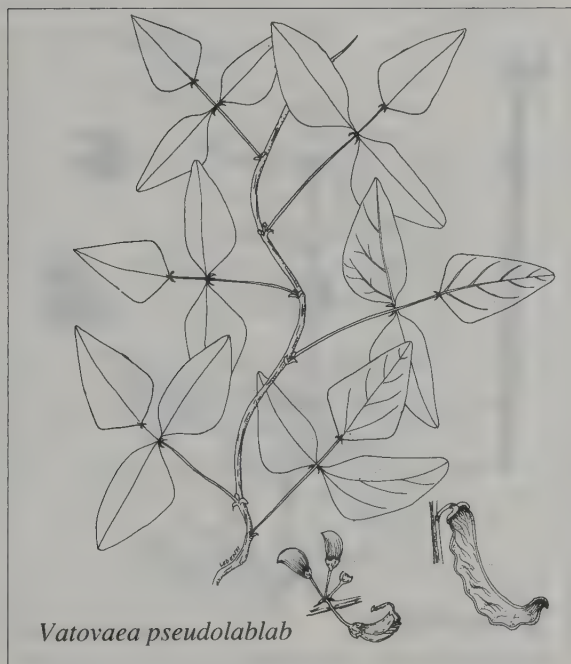
*Tephrosia interrupta*

*Tephrosia vogelii**Vatovaea pseudolablab***35. VATOVAEA**

Leaves pinnately 3-foliolate; stipules and stipels present. Inflorescence axillary, pseudoracemose; its rachis swollen at base of pedicels. Fruit linear, the valves twisted after dehiscence.

***Vatovaea pseudolablab* (Harms) Gillett**

Shrub or (half-) climber, 1-3m, arising from enormous woody tuber. Leaflets (broadly) (ob)ovate to rhomboid, sometimes almost 3-lobed, base cuneate or obtuse (obliquely in laterals), apex obtuse or apiculate, 1-8 by 0.8-6.5cm, glabrous or sparsely hairy. Flowers (sometimes present when leafless) green and purple to blueish, in long (to 50cm) erect inflorescences; petals 1-2cm long. Fruit flattened, curved, 4.5-6 by 0.5-1cm, pubescent but becoming glabrous.

*Vatovaea pseudolablab*

K12467; 450-1400m; II-XII (V)

Dry (*Acacia-Commiphora*) bushland, often on lava or along drainage lines; occasionally in semi-desert grassland.

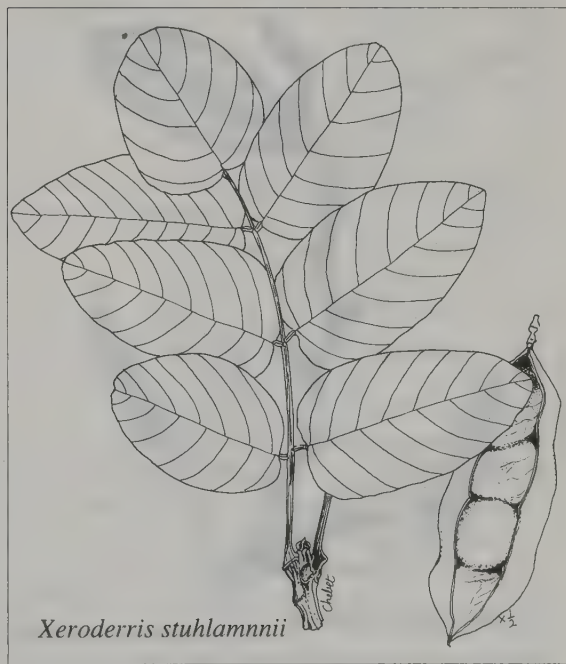
Gabbe (BOR), Gaabbe (GAB), Olkalei (MAA), Kelowo (PKT), Henadi (REN), Njasi (SAM), Egilai (TUR). Roots are used as emergency food/water; seeds are eaten as beans; root fibres are used to make rope.

36. XERODERRIS

Leaves imparipinnate, with caducous stipules and no stipels; leaflets subopposite. Flowers in lateral panicles, before the leaves. Fruit flattened, indehiscent, slightly winged.

***Xeroderris stuhlmannii* (Taub.) Mendonça & Sousa**
[*Ostryoderris stuhlmannii* (Taub.) Bak.f.]

Tree 6-18m with rounded crown; bark greybrown, rough, flaking. Leaflets (11)13-17, ovate or elliptic, base rounded to obliquely cordate, apex obtuse, 5-13 by 3.5-6cm, pubescent but becoming glabrous; lower leaflets smaller than the upper ones. Flowers white, in lax panicles to 20cm long; petals 13-15mm long. Fruit oblong, 9-18 by 3-4cm, 1-3(5) seeded; wing to 1cm wide.

*Xeroderris stuhlmannii*

K7; 1-400m; — *

Collected in Shimba Hills in 1902, and in Marenji forest in 1937; recently found at Dzombo, in grassland (1989). When not flowering looks like *Spathodea*. Mondogondo (SWA).

151. HAMAMELIDICEAE

Leaves alternate; stipules linear, caducous. Inflorescences axillary, in dense heads, bisexual or sometimes female only. Calyx with a short tube; lobes 4-5. Petals 4-5 (often absent in female flowers), stamens 4-5. Fruit a capsule, 2-valved, 1-2 seeded.

1. TRICHOCLADUS

Trichocladus ellipticus Eckl. & Zeyh.

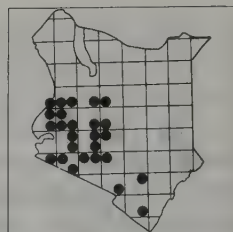
ssp. *malosanus* (Bak.) Verdc.

Shrub (rarely scandent) or tree (1.5) 3-10(18)m, evergreen. Leaves silvery or yellowish brown beneath, elliptic or obovate, base cuneate or rounded, apex acute or acuminate, 5-14(28) by 3-7(12)cm, densely stellate-tomentose beneath. Flowers yellow, in heads to 2cm across; petals 9-20mm long. Fruit subglobose, 5-7 by 5mm.

K1234567; 1350-2800m; I-VII, IX-XII

Dry or moist forest, riverine forest; may be locally common or even a dominant understorey species,

Trichocladus ellipticus



especially near streams in forest, where it may form dense thickets.

Ethinia (KAM), Mutikati (KIK), Ol-Bulegelugi (MAA), Mutimweru (MER), Parageiyuet (NAN, KIP), Beregeiwet, Berikaandet (OKI), Ilbalagiilagi (SAM), Beriakaya, Baragaya (TUG, NDO, SEB), Izdu (TAI), Eputhekyuen (TUR). The wood is hard and tough, and is used for building poles.

154. BUXACEAE

Leaves opposite, exstipulate. Flowers monoecious, unisexual. Sepals 4. Petals 0. Stamens 6; styles 3. Fruit a capsule, 3-valved, few-seeded.

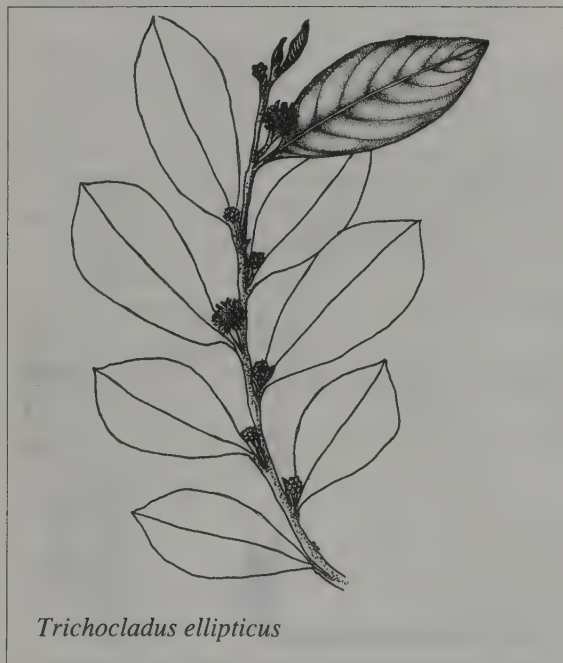
1. BUXUS

Buxus obtusifolia (Mildbr.) Hutch.

[*Notobuxus obtusifolia* Mildbr.]

RARE

Shrub 0.5-4m, rarely a small tree to 6m, evergreen;



Trichocladus ellipticus



Buxus obtusifolia

bark corky. Leaves shiny, elliptic, base cuneate, apex obtuse or emarginate, (2)4-7 by 2-4.2cm, glabrous or nearly so. Flowers yellow-green, in small axillary inflorescences of 1 female and 4 male flowers; the whole less than 2.5mm long. Fruit black, ovoid, splitting in 3; seeds black and shiny.

K7; 1-500m; I, III, XI *

Forest or wooded bushland: Boni, Arabuko, Mangea, Hadu, Gazi, Dzombo, Kinondo.

Mdhahabu (SWA, GIR), Sokokoe, Masere (GIR), Babala (SAN). Root decoction used against chest complaints by the Giriama.

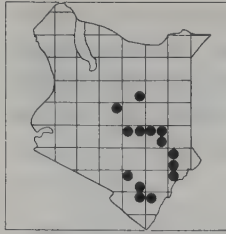
156. SALICACEAE

Trees or shrubs. Leaves alternate, with deciduous stipules. Flowers dioecious, in catkins; perianth absent. Fruit a dehiscent capsule with many small seeds, each with a tuft of hairs.

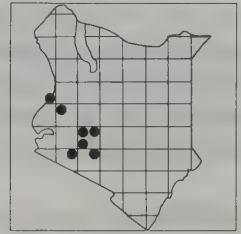
- | | |
|---|-------------------|
| 1. Leaves broad (except in juveniles or sucker shoots), lobed | 1. <i>Populus</i> |
| * Leaves narrow, toothed | 2. <i>Salix</i> |

1. POPULUS

Trees. Male flowers with 4-many stamens; female flowers with several branched styles. Capsule 2-4 valved.



Populus ilicifolia



Salix subserrata

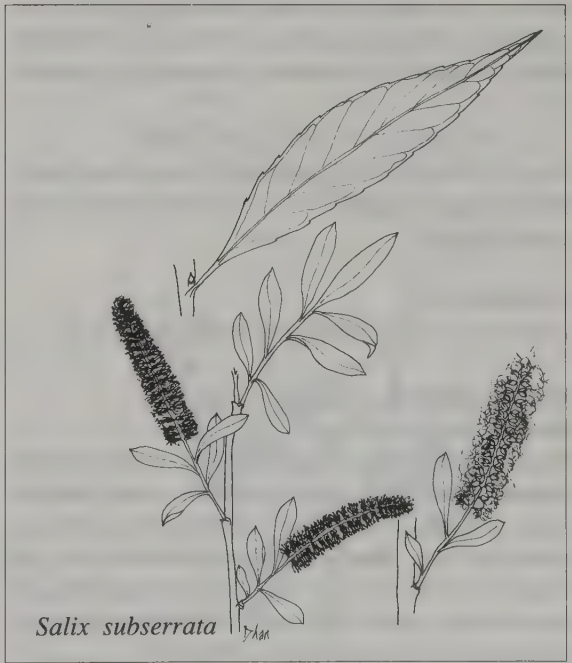
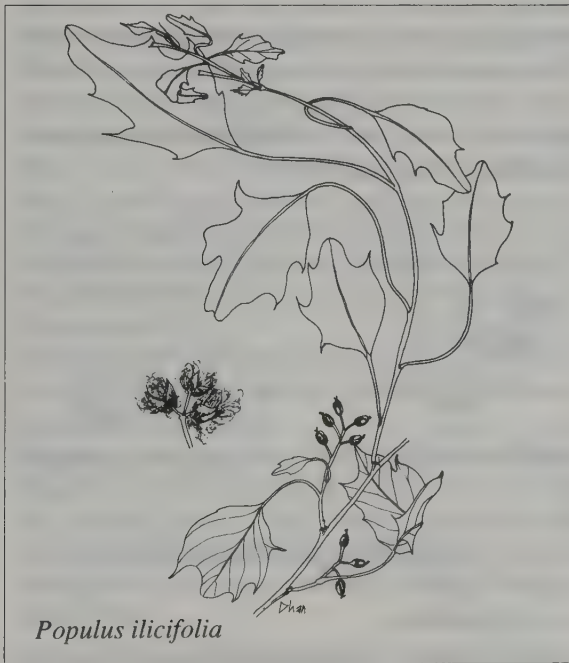
Populus ilicifolia (Engl.) Rouleau

RARE

Tree to 30m, with pendulous young branches; bark (in young trees) smooth and white, (in older trees) brown-grey and fissured. Leaves greygreen or yellow-green, lobed, elliptic or (broadly) ovate [in juveniles or sucker shoots (sub) linear and entire to dentate], base cuneate or rounded, apex long-acute or truncate and lobed, 4-12 x 2.5-6.5cm, glabrous or nearly so. Male catkins axillary, reddish, 1-2cm long, with 6-9 flowers; female catkins terminal on short axillary branches bearing few leaves, yellow-green, 1-4cm long, with 5-15 flowers. Fruit pale grey, later pink, ovoid, 7-15 x 4-8mm, warted, 2-4 valved.

K147; 1-850m; I, V-IX *

Riverine forest, sandbanks, riparian woodland; often locally common. Endemic to Uaso Nyiro, Tana, and Athi/Galana river systems.



Tana River Popular (STAND), Siricha (BON), Guduba (BOR), Mlalali (DUR), Mulalati (ILW), Mungai, Makini (KAM), Lalafto (ORM), Lalaftu (PKM), Malalai (SAN), Sirkh (SOM). Used for making dugout canoes.

2. SALIX

Trees or shrubs with narrow leaves. Flowers often appearing before the leaves. Male flowers with 2-many stamens. Female flowers with 2 entire or bifid styles. Capsule 2-valved.

Salix subserata Willd.

(*S. hutchinsii* Skan)

Map & figure p. 315

Shrub or tree 2-10m, deciduous; muchbranched; stems reddish or black, furrowed; branches spreading and pendulous. Leaves pale glaucous green beneath, narrowly elliptic, base cuneate, apex acute or emarginate, margin entire or serrate, 1.5-8 x 0.5-1.5cm (larger on juvenile growth), glabrous or nearly so. Catkins terminal on short axillary branchlets; male catkins 3-9cm long with many sessile flowers; female catkins 1.5-8cm long with many flowers. Fruit yellow-green, ovoid, 4.5-6 x 2-2.5mm, glabrous, on an up to 3.5mm long stipe; seeds with long hair-tuft.

K346; 1550-2400m; I, VII, X *

Riverine in bushland or forest.

Willow (common), Ketarwet-Nebo-Bek (KIP), Ole-mudongo (MAA), Kambezo (NAN), Koimboindet (SEB). Wood tough, bendable, but attacked by borers.

159. MYRICACEAE

Trees or shrubs, often aromatic. Leaves alternate. Flowers unisexual, in axillary catkin-like spikes. Fruit a small drupe.

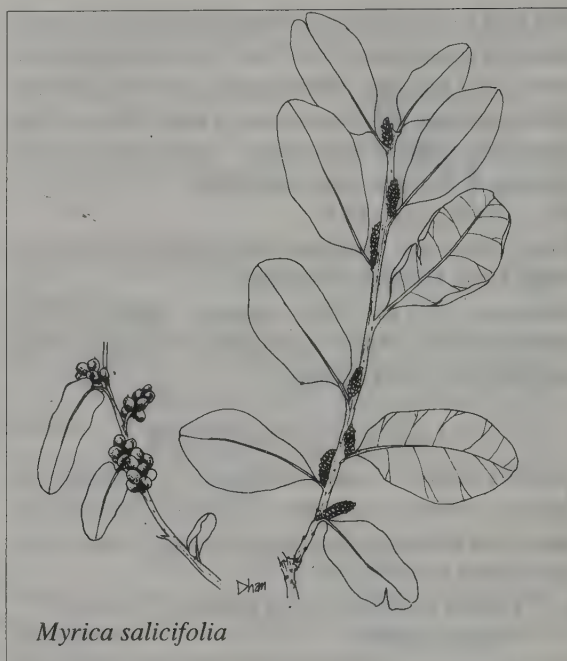
1. MYRICA

Flowers dioecious, male or bisexual; stamens 6.

Myrica salicifolia A.Rich. var. *salicifolia* (incl. *M. kandiana* Engl.)

Shrub or tree 0.5-9m, evergreen. Leaves elliptic, base cuneate or rounded, apex obtuse or acute, margins entire or dentate, 3-6(12.5) by 1.5-3(4.5)cm, glabrous, glandular (esp. below). Flowers brownish, tiny, in spikes 0.5-1(3)cm long. Fruit greyish, globose, 3-4mm across, warty, often with a white waxy bloom.

K234567; 750-3050m; III, V, VII, IX *



Myrica salicifolia

Dry rocky bushland on eroded slopes.

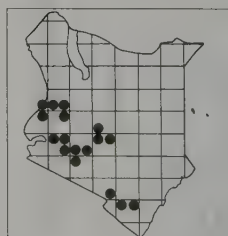
- var. *subalpina* Engl. (*M. meyeri-johannis* Engl.)

Shrub 0.5-1.8m. Leaves 1-3 by 0.5-1.5cm.

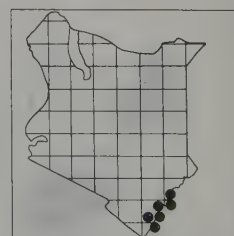
K34; 3000-3400 m; (*Protea*) bushland.

This variety might be just an adaption to the environment.

Muthogoya, Murima Muthua (KIK), Kabuneto (KIP), Olketoloswa (MAA), Kibogen, Chebiakwai (MAR). Note. The form with very large (up to 12.5 x 4.5cm) leaves has been found on the Marakwet escarpment, (Lindsay 15, 62; Blunt 159)



Myrica salicifolia



Casuarina equisetifolia

164. CASUARINACEAE

1. CASUARINA

Trees or shrubs. Branchlets deciduous, with narrow

165. ULMACEAE

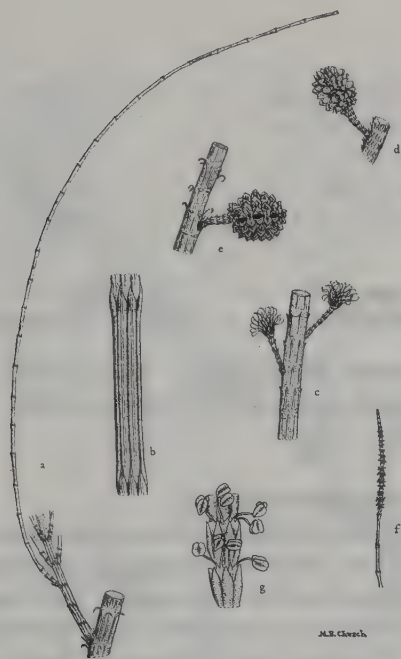
Trees or shrubs. Leaves alternate, simple; stipules lateral, often small and caducous. Flowers small, solitary or in axillary inflorescences. Sepals 4-8, persistent. Petals absent. Fruits thinly fleshy or dry and winged.

1. Plants armed with axillary spines **2. *Chaetacme***
- * Plants unarmed **2**
2. Leaf margin entire or toothed in upper two-thirds **1. *Celtis***
- * Leaf margin toothed almost from the base **3. *Trema***

1. CELTIS

Leaves often with unequal-sided base, sometimes 3-5 nerved from the base. Inflorescences cymose or fasciculate, flowers monoecious; male flowers usually in inflorescences below the female and bisexual flowers. Sepals 5. Fruit a thinly fleshy drupe.

1. Basal 2 veins reaching well into the upper half of the leaf **2**
- * Basal 2 veins reaching about halfway of the leaf **3**
2. Style unbranched; inland species above 1000m **1. *C. africana***



Casuarina equisetifolia L.

a: lateral shoot showing 1 branchlet and bases of 4 others ($\times 1$). b: part of branchlet showing scale leaves ($\times 8$). c: 2 \varnothing cones showing styles ($\times 1$). d: young \varnothing cone ($\times 1$). e: mature \varnothing cone ($\times 1$). f: σ cone ($\times 1$). g: part of σ cone ($\times 8$).
a, b & c: from MacNaughton 159; c: from Sheffler 7168; d: from Greenway 5057; f & g: from Grote 7166.

grooves. Leaves reduced to whorls of small triangular scales, united at base. Flowers in unisexual inflorescences; male flowers consisting of a single stamen, arranged in spikes; female flowers consisting of an ovary with two styles, arranged in compact heads. Infructescence cone-like, woody; fruit small, winged on one side. Several species have been cultivated in Kenya.

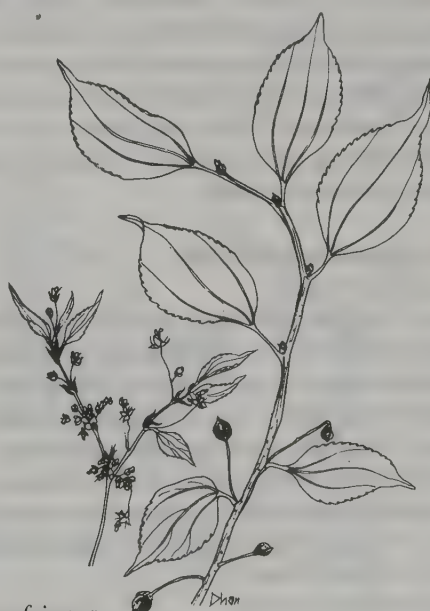
Casuarina equisetifolia L.

Tree 7-25m, muchbranched, with rough dark grey bark. Male spikes 1-4cm long, abundant on deciduous branches and mostly terminal; female heads ovoid or subglobose, 3-4mm long, shortly stalked and axillary. Infructescence subglobose or short-cylindrical, 10-16mm across.

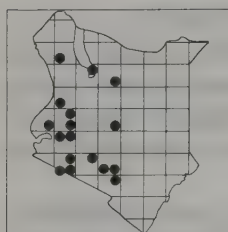
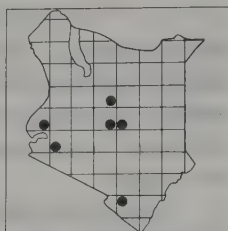
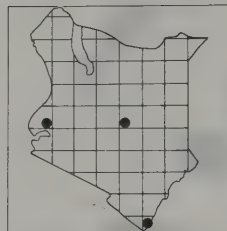
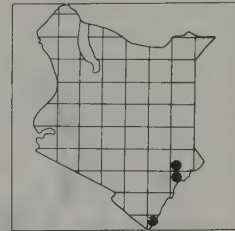
K7; near high water mark; X *

Beach, on sand near high water mark, also in coastal bushland; widely planted.

Whistling Pine, She Oak (STAND), Mvinje (SWA). Planted for soil stabilization, as it grows quickly in dry and infertile areas. The roots have nodules with nitrogen-fixing bacteria. Used for dhow-masts; timber durable in salt water. Bark with tannin, yielding a reddish dye.



Celtis africana

*Celtis africana**Celtis gomphophylla**Celtis mildbraedii**Celtis philippensis*

- * Style branched; Coastal species below 500m
- 3. Style unbranched; fruit 4-6mm long when dry
- * Style branched; fruit 7-10mm long when dry

4. *C. philippensis*

2. *C. gomphophylla*

3. *C. mildbraedii*

1. *Celtis africana* Burm.f.

Tree 5-27m, deciduous; bark smooth, pale grey, often slightly ring-marked. Leaves ovate, base rounded, apex acuminate, margin serrate in upper two-thirds, 2-10 by 1-5.5cm, pubescent or sandpapery, basal 2 veins reaching upper half of leaf. Cymes of male flowers in lower leaf axils, cymes of bisexual flowers in upper leaf axils. Fruit orange, subglobose, about 5mm across, pubescent.

K12345; 1150-2400m; I, IV-V, X-XII *

Dry moist evergreen forest; also in riverine forest.

Akasinga (STAND), Murundu (KIK, MER), Chepkeleliet, Nyasiat (KIP), Mweyu, Mwenye (LUH), Olmositet (MAA), Chepkeleriet (NAN), Mase (NDO), Mastet, Mastitet, Mosididiet (SEB), Musisetiet, Tandimu, Tandimwo (TUG), Eng'omwo (TUR). The wood is strong and tough, and is used for building, furniture and tool handles.

2. *Celtis gomphophylla* Bak.

(*C. durandii* Engl.)

Tree 8-15(25)m, deciduous; bark smooth, pale grey. Leaves elliptic or ovate, base cuneate or rounded, apex long-acuminate, margin entire or with a few coarse teeth, 5.5-16.5 by 2-7.5cm, glabrescent or sandpapery; basal 2 veins just reaching upper half of leaf. Male flowers often flowering before the other ones, crowded; female and bisexual flowers few. Fruit yellow, conic-ovoid, 4-angled when dry, 4-6mm long, glabrous.

K1457; 1200-1750m; *

Moist evergreen forest.

Kakamega Stinkwood, Musa (STAND), Namanuka

(common), Musaa (KIK), Musa (LUH), Makobo, Nyawend-Agwata (LUO), Mutoro (MER). Wood not durable.

3. *Celtis mildbraedii* Engl.

Tree 3-35m, deciduous, with sharp buttresses and pale brown bark, smooth or scaling in small discs. Leaves elliptic or obovate, base cuneate, apex long-acuminate, margin obscurely or coarsely toothed in upper half, 6.5-15 by 4.5-6cm, glabrescent; basal 2 veins just reaching upper half of leaf. Inflorescence to 1.5cm long. Fruit red, ovoid-ellipsoid, 4-ribbed when dry, 7-10mm long, glabrous.

K457; 50-1600m; *

Moist evergreen forest.

African *Celtis* (STAND), Shunza (LUH), Muruanje (MER). Wood not durable in ground.

4. *Celtis philippensis* Blanco

(*C. wightii* Planch., *C. mauritiana* Planch.)

Shrub or tree 2-20m; often with short buttresses; bark smooth, light grey. Leaves elliptic, base cuneate or rounded, apex acuminate, margin entire or coarsely toothed in upper half, 6-17.5 by 3.5-8cm, 2 basal veins nearly reaching apex. Inflorescence 0.5-3cm long; flowers small, whitish. Fruits red, ovoid, shortly beaked, up to 12 by 10mm, glabrous.

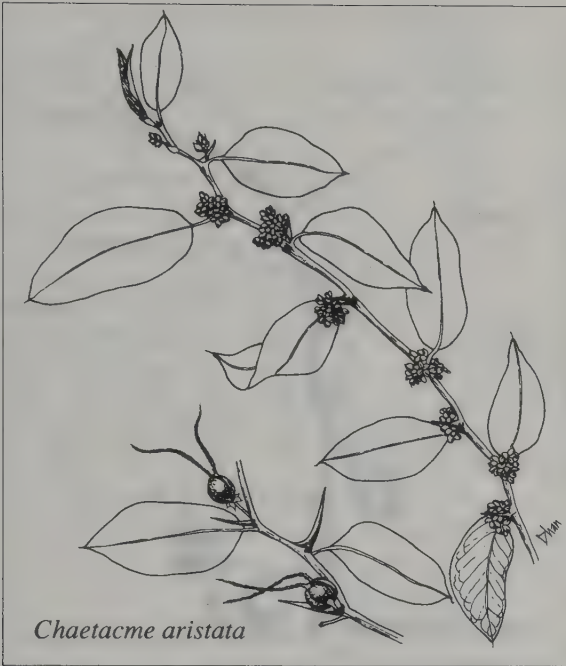
K7; 1-400m; III *

(Riverine) forest.

Mutambuu (DIG). Roots used in diarrhoea medicine.

2. **CHAETACME**

Shrubs or trees; branches with axillary spines. Inflorescence a cyme, with many male flowers and rarely a female flower at the top; female flowers often solitary, in the upper axils. Sepals 5; styles long, divaricate. Fruit thinly fleshy.



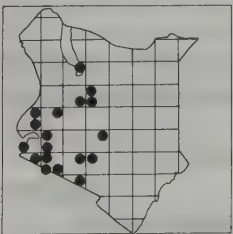
***Chaetacme aristata* Planch.**

Shrub or (bushy) tree (1) 3-10m, evergreen, with drooping, often zigzag branches; bark smooth, grey. Spines 5-35mm, single or paired. Leaves glossy, elliptic, base cuneate, rounded or subcordate, unequal-sided; apex shortly acuminate with a long mucro, margin entire or (deeply) serrate, 3.5-12 by 2-5.5cm, sometimes pubescent beneath. Flowers yellow-green, the males in clusters 5-15mm across. Fruit yellow to red, ovoid, 12-14mm long, often with long, persistent styles (to 3cm long).

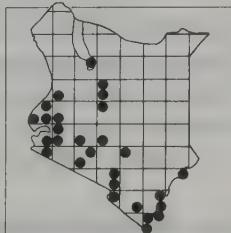
K13456; 1050-2100m; I-V, VIII-XII

Riverine (in forest or bushland), also in evergreen forest (edges).

Muyuyu (KIK), Chepkatet (KIP), Ikhomo, Likhomo (LUH), Olmorogi luwaso (MAA), Kwamakonja (NAN), Sanungurr (SAM). Wood very heavy.



Chaetacme aristata



Trema orientalis

3. TREMA

Trees or shrubs. Inflorescence of axillary cymes with many male flowers and some female (or bisexual) flowers near the top. Sepals 5, styles short. Fruit a thinly fleshy drupe.

***Trema orientalis* (L.) Bl.**

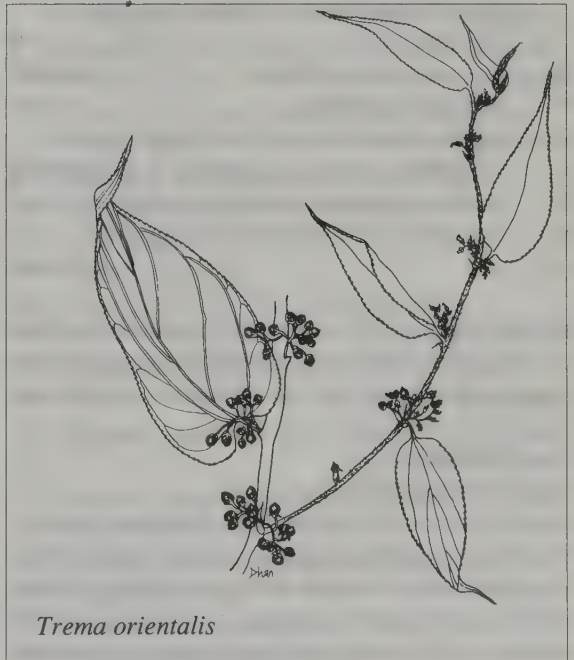
[*T. guineensis* (Schum. & Thonn.) Ficalho]

Shrub or tree, 1.2-12m, evergreen, with drooping branches; bark smooth, grey. Leaves elliptic or ovate, base rounded or (sub)cordate, apex acuminate, margin serrate, 7-14 by 2-7cm, sandpapery. Flowers yellow-green, in crowded, about 10mm long cymes. Fruit black, globose or ovoid, 3-5mm long, glabrous.

K134567; 1-1800(2600)m; I-XII

Forest margins, riverine (secondary) bushland, woodland, wooded grassland; a pioneer where forest has been disturbed.

Mzunguzungu (SWA, GIR), Mbonobono (DIG), Muhethu (KIK), Poponet (KIP), Omonyia (KIS), Musagala (LUH), Olawoshai (MAA), Muethu (MER), Lnyalikoi, Lositet (SAM), Mbaranyungu (TAV), Mwensu (TAI). The fruit is edible; the wood is very perishable.



Trema orientalis

167. MORACEAE

Mainly a family of shrubs and trees, exuding latex when cut. Leaves alternate, stipulate, but in most species the stipules are quickly caducous. Flowers unisexual, small, often many together on a fleshy receptacle. Fruit usually a multiple fruit (fig, mulberry).

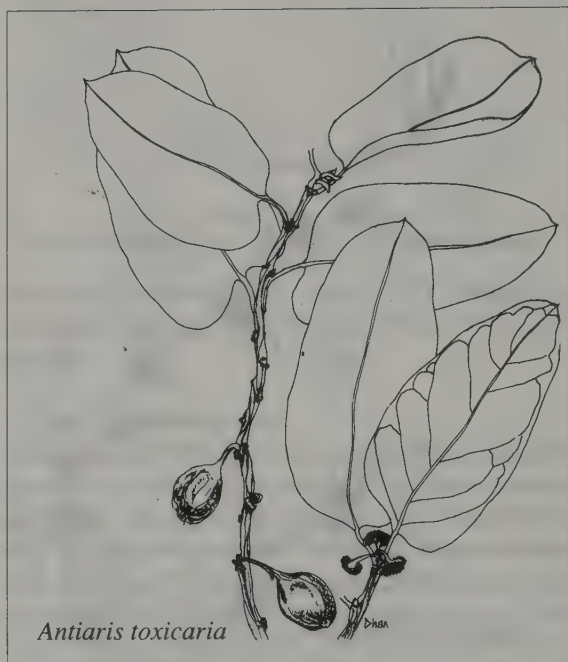
- | | |
|---|-----------------------|
| 1. Leaves digitately compound | 7. <i>Myrianthus</i> |
| * Leaves simple | 2 |
| 2. Spiny shrub | 4. <i>Maclura</i> |
| * Unarmed shrubs or trees | 3 |
| 3. Flowers in the inside of a hollow receptacle with a very narrow mouth (fig) | 3. <i>Ficus</i> |
| * Flowers in catkins, on disks, in cups, or solitary | 4 |
| 4. Leaf margin toothed | 5 |
| * Leaf margin entire | 8 |
| 5. Leaves densely pubescent beneath | 5. <i>Milicia</i> |
| * Leaves glabrous or nearly so | 6 |
| 6. Leaf apex acute or obtuse; a tree | 1. <i>Antiaris</i> |
| * Leaf apex acuminate; shrubs | 2 |
| 7. Many male flowers around a single female flower on a disk | 2. <i>Dorstenia</i> |
| * Flowers dioecious: male flowers in spikes, female flower solitary | 8. <i>Streblus</i> |
| 8. Shrubs; inflorescences on a disk, horned | 2. <i>Dorstenia</i> |
| * Trees; inflorescences in spikes, on cups, or clustered | 9 |
| 9. Leaf apex acute or obtuse | 1. <i>Antiaris</i> |
| * Leaf apex acuminate | 10 |
| 10. Leafbase cuneate; male and female flowers together in cuplike receptacles | 9. <i>Trilepisium</i> |
| * Leafbase rounded or subcordate; male flowers in spikes, female flowers 1-3 together | 6. <i>Morus</i> |

NOTE: Berg in FTEA splits off the genus *Myrianthus* in the family CECROPIACEAE, distinguished by watery sap turning black on exposure, and stilt roots.

1. ANTIARIS

Antiaris toxicaria (Pers.) Lesch.

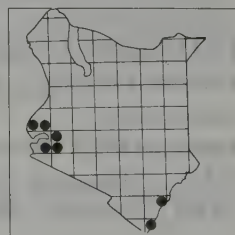
Tree to 45m with straight bole, buttresses small or medium-sized; bark smooth, pale grey. Leaves ovate or elliptic, base unequal and subcordate (or rarely cuneate), apex acute or obtuse, 7.5-22 by 4-10cm (in saplings with dentate margins), glabrous or sandpa-



pery. Flowers dioecious or submonoecious (also ? precocious), in kidney-shaped inflorescences to 15mm long. Fruit ellipsoid, single-seeded, scarlet, 10-18mm long.

K57; (coast) 1-400m, (inland) 1350-1700m; I-II, V * Moist forest (-relicts).

Antiaris (STAND), False Iroko, False Mvule (TRADE), Mkunde (SWA), Mguoguo (DIG), Mulundu (LUH), Olua, Madhako (LUO). The bark was formerly used as barkcloth; wood attacked by borers and termites.



2. DORSTENIA

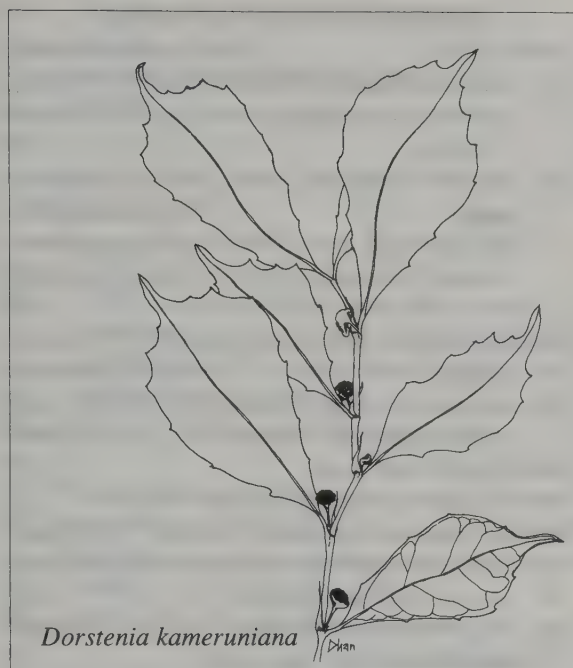
Male and female flowers together in axillary shallow cups. Quite a large genus, but only 2 species in Kenya are over 1.5m high.

1. Leaves elliptic, margin entire or lobed

1. *D. alta*

- * Leaves obovate, margin coarsely toothed

2. *D. kameruniana*



Dorstenia kameruniana

1. *Dorstenia alta* Engl.

(*D. scaphigera* Bureau)

Shrub to 1.7m. Leaves elliptic, margin entire or lobed, base cuneate, apex short and obtusely acuminate, 5-11.5 by 2-4cm, glabrous or slightly sandpapery beneath. Flowerheads to 2cm wide, with a horn at each end (horn to 12mm long). Fruits minute.

K7; 50-250m; I, XI-XII *

Found at Pangani and Cha Simba, also Shimba Hills, on limestone outcrops with patches of forest.

2. *Dorstenia kameruniana* Engl.

[*Craterogyne kameruniana* (Engl.) Lanjouw]

(Multistemmed) shrub to 2.7m, evergreen. Leaves obovate, coarsely dentate at the margin, base cuneate-attenuate, apex subtruncate and abruptly acuminate, 8.5-18 by 2.8-7cm, glabrous or minutely puberulous on midrib and veins. Flowerheads 5-8mm across; flowers white. Fruiting receptacle not seen.

K7; 1-400m; II, VII-VIII, XI-XII *

Riverine or wet forest, or on limestone, locally common: coast south of Kilifi.

Mkingano (SWA).

3. FICUS

Trees, shrubs or lianas, terrestrial or epiphytic (then strangling and secondarily terrestrial), monoecious or

dioecious. Leaves alternate or sometimes subopposite; stipels often caducous. Inflorescence a syconium (fig), among the leaves or on older wood. Peduncle with 2-3 bracts just below the fig; ostiole (apical opening) of fig with bracts, often on the inside.

NOTE: figs in branched, leafless inflorescences on the trunk occur in *F. sur* & *F. sycomorus*; figs in bunches from spurs on older wood occur in *F. bubu*, *F. chirindensis*, *F. ottoniifolia*, *F. polita*, *F. sansibarica*, *F. tremula*.

NOTE. All measurements of figs refer to their dried state. Fresh figs are often up to 25% larger.

1. Leaves truncate (or nearly so) at the apex

8. *F. craterostoma*

* Leaves not truncate at the apex 2

2. Leaves sandpapery 3

* Leaves glabrous or hairy, but not sandpapery 8

3. Leaf-apex rounded or obtuse 27. *F. sycomorus*

* Leaf-apex acute or acuminate 4

4. Leafbase cuneate or narrow and obtuse 5

* Leafbase rounded or (sub)cordate 7

5. Leafapex long-acuminate 2. *F. asperifolia*

* Leafapex acute or shortly and bluntly acuminate 6

6. Shrub or small tree to 4.5m, riverine; leaves mainly (sub)opposite 5. *F. capreifolia*

* Tree 4-27m, forest (edge); leaves always alternate 10. *F. exasperata*

7. Petiole 3-12mm, leaves 2-5cm wide; shrub or tree to 4.5m 5. *F. capreifolia*

* Petiole 12-80mm, leaves 3-13cm wide; tree 4.5-25m 26. *F. sur*

8. Leafbase cuneate or narrow and obtuse 9

* Leafbase rounded or (sub)cordate 17

9. Leaves hairy 10

* Leaves glabrous 11

10. Leaves 13-50 by 3-17cm; Kakamega

23. *F. saussureana*

* Leaves 3-12.5 by 1.5-6cm; widely spread

28. *F. thonningii*

11. Stipules persistent, partly connate, 1-2cm long

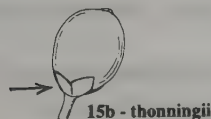
9. *F. cyathistipula*

* Stipules caducous, or if subpersistent, free and less than 1cm long 12

12. Coastal, found at altitudes to 50m; leaves less than 2cm wide 14. *F. lingua*

* Inland species found above 900m alt., or leaves more than 3cm wide 13

13. Ostiole at apex of fig with 3 visible bracts; swamp species (Kitale) **32. *F. verruculosa***
 * Ostiole at apex of fig without visible bracts, only a slit visible **14**
 14. Figs on spurs on old wood (coastal) **42**
 * Figs in leafaxils **15**
 15. Basal bracts of fig caducous **16. *F. natalensis***



15b - thonningii



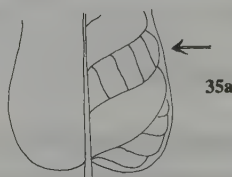
15a - natalensis

- * Basal bracts of fig persistent **16**
 16. Ripe figs yellow or green, 7-14mm across; petiole 1-2mm thick **28. *F. thonningii***
 * Ripe figs green, 12-30mm across; petiole 2-3mm thick **24. *F. scasselattii***
 17. Leafmargin toothed or crenulate **18**
 * Leafmargin entire **20**
 18. Leafmargin crenulate; petiole 0.3-2cm; figs sessile **17. *F. nigropunctata***
 * Leafmargin toothed; petiole 1.2-11cm; figs pedunculate **19**
 19. Figs on leafless branches on old wood; leaves about 2x as long as wide **26. *F. sur***
 * Figs among the leaves; leaves less than 1.5x as long as wide **30. *F. vallis-choudae***
 20. Stipules persistent, 10-20mm long; leaves obovate **9. *F. cyathistipula***
 * Stipules caducous, or shorter, or leaves ovate to elliptic **21**
 21. Leaves less than 1.5x as long as wide **22**
 * Leaves more than 1.5x as long as wide **28**
 22. Petiole 0.5-1.5cm; tertiary venation parallel to secondary (Shimba Hills) **11. *F. faulkneriana***
 * Petiole longer (except in *F. glumosa*); tertiary venation partly at right angles **23**
 23. Figs on spurs on old wood **24**
 * Figs among or just below the leaves, in leafaxils **25**
 24. Leaves 12-30cm long, leafy twigs 6-12mm thick **3. *F. bubu***
 * Leaves 5-10cm long, leafy twigs 2-5mm thick **20. *F. polita***
 25. Figs when mature (& dried) 20-45mm across;

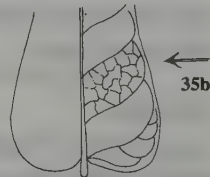
riverine tree; leafbase often rounded

30. *F. vallis-choudae*

- * Figs when mature 5-16mm across; trees of rocky habitats, occasionally also riverine; leafbase cordate **26**
 26. Figs on 8-20mm long stalks; leaves acuminate at apex **21. *F. populifolia***
 * Figs subsessile or on up to 5mm long peduncles; leafapex rounded, obtuse, or shortly acuminate **27**
 27. Leafy twigs 2-8mm thick; petiole 0.3-3.5cm, not flaking **12. *F. glumosa***
 * Leafy twigs 5-12mm thick; petiole 2-9cm, with flaking epiderm when dry **31. *F. vasta***
 28. Figs on older wood **29**
 * Figs in leaf-axils or just below leaves **33**
 29. Figs on branched leafless branches **26. *F. sur***
 * Figs on short spurs or in clusters on thicker wood, not in branched systems **30**
 30. Petiole less than 1mm thick **29. *F. tremula***
 * Petiole more than 1mm thick **31**
 31. Figs with persistent, 2-3mm long basal bracts; figs glabrous **18. *F. ottoniifolia***
 * Figs with caducous basal bracts; figs (minutely) puberulous **32**
 32. Leafbase cordate; basal veins branched (Thika) **6. *F. chirindensis***
 * Leafbase rounded; basal veins unbranched (Coastal and Western) **22. *F. sansibarica***
 33. Figs on peduncles more than 10mm long; coastal species, at altitudes below 450m **34**
 * Figs on peduncles less than 10mm long, or, if 10mm long, only found at altitudes above 900m **35**
 34. Leafy twigs more than 4mm thick; leaves 9-22 by 4-11cm **4. *F. bussei***
 * Leafy twigs less than 3mm thick; leaves 4-7.5 by 2-4.5cm **11. *F. faulkneriana***
 35. Tertiary venation of leaves thicker, partly at right angles to veins **36**
 * Tertiary venation of leaves uniformly reticulate **39**



35a



35b

36. Figs at the ostiole with 3 visible bracts

13. *F. ingens*

- * Figs without visible ostiolar bracts; only a slit visible

37



37. Leafbase cordate; figs 5-12mm across; leaves 2-14cm long

12. *F. glumosa*

- * Leafbase rounded or subcordate; figs 12-25mm across; leaves 9-30cm long

38

38. Petiole, when dry, with flaking epiderm

15. *F. lutea*

- * Petiole, when dry, not flaking

19. *F. ovata*

39. Figs at ostiole with 3 visible bracts

7. *F. cordata*

- * Figs without visible ostiolar bracts; only a slit visible (see ill. for 36, above)

40

40. Leaf with basal veins faintly branched

25. *F. stuhlmannii*

- * Leaf with unbranched basal veins

41

41. Basal bracts of fig 0.2-0.4cm long

28. *F. thonningii*

- * Basal bracts of fig 1.5-2 cm long

1. *F. amadiensis*

42. Leaf apex acuminate

18. *F. ottonifolia*

- * Leaf apex obtuse

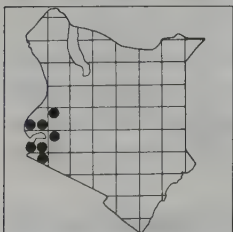
22. *F. sansibarica*

1. *Ficus amadiensis* De Wild.

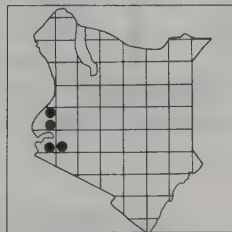
(*F. kitubalu* Hutch.)

Spreading tree 4-15m. Leafy twigs 5-10mm thick; stipules subsistent, 5-15mm long. Leaves glossy, elliptic or ovate, base rounded a subcordate, apex rounded or obtuse, 7-14 by 3-7cm, glabrous; petiole 1.5-7.5cm, 1.5-3.5mm thick. Figs sessile in leaf axils, basal bracts persistent, 15-20mm long; figs red, globose, 12-22mm across and wrinkled when dry.

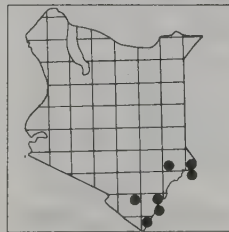
K356; 1500-1950m; III, VIII-IX, XII *



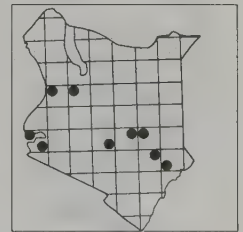
Ficus amadiensis



Ficus asperifolia



Ficus bussei



Ficus capreifolia

Wooded or clumped bush grassland.

Bonyo (LUO). Fruits are edible.

2. *Ficus asperifolia* Miq.

(*F. stortophylla* Warb., *F. urceolaris* Hiern)

Shrub 1.5-6m, often with subscandent branches. Leaves elliptic or slightly (ob-) ovate, base cuneate, apex long-acuminate, margin lobed or dentate, 4-20 by 2-9cm, sandpapery; petiole 0.5-2cm. Figs yellow or red, sessile or on peduncles to 2mm long, in the leafaxils, globose, 5-14mm across, sandpapery.

K35; 1500-1850m; I, IV, VII, IX-XII *

Forest edges and thickets.

Luseno (LUH). The latex is used by the Luhya against skin swellings in humans and stock.

3. *Ficus bubu* Warb.

Tree to 20m, often epiphytic; bark pale green or white; leafy twigs 6-12mm thick. Leaves elliptic to subcircular, base rounded or cordate, apex short-acuminate to almost rounded, 12-30 by 6-23cm, glabrous; petiole 4-11cm long. Figs on short spurs on older wood, with 7-10mm long peduncles and persistent 4-5mm long basal bracts; figs brownish, globose, about 2.5cm across, glabrous or nearly so and wrinkled when dry.

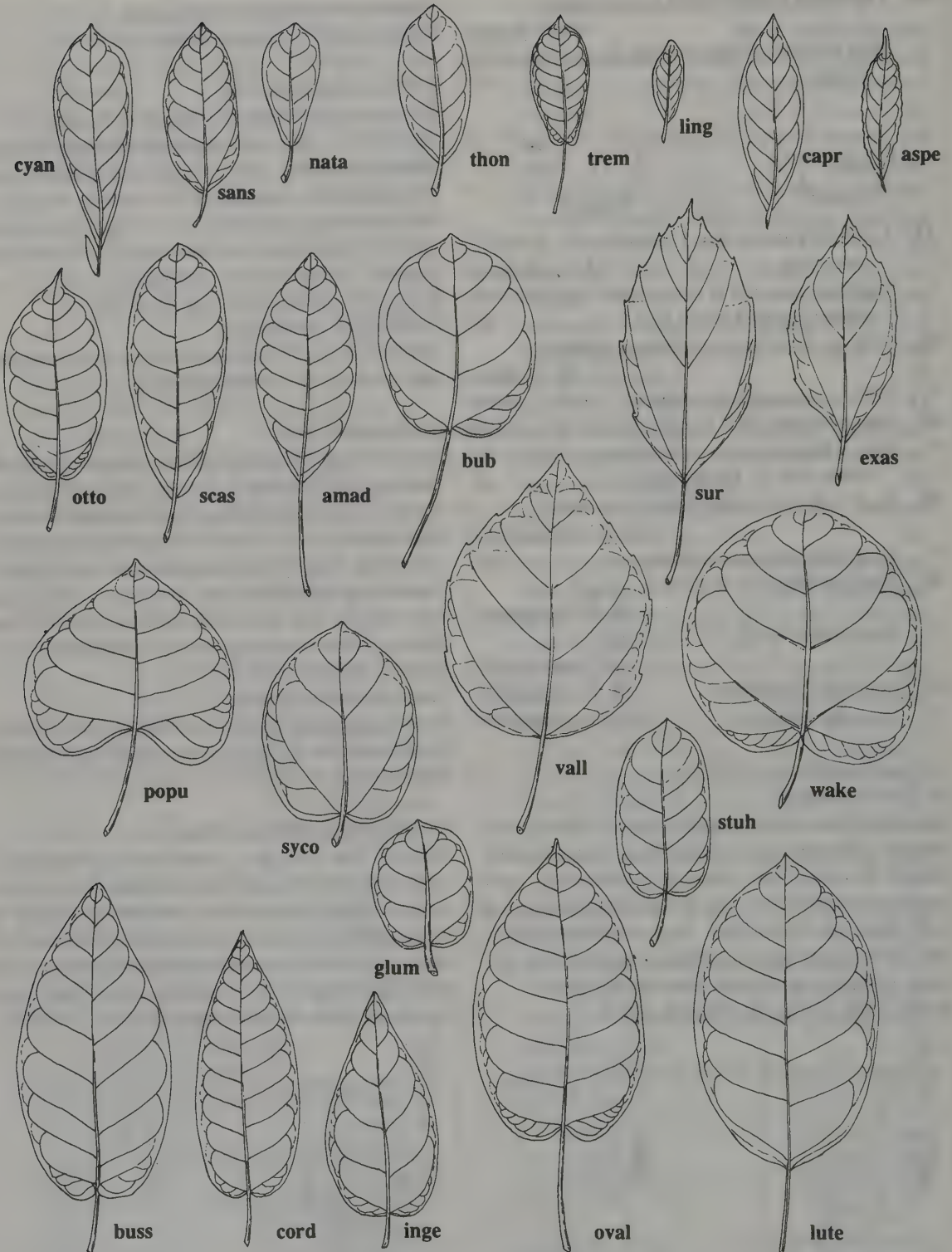
K25,7; 1-1200m; I, IX *

Forest or riverine forest.

Note: Faden et. al. 70/41 from Yala R. forest is possibly this species. Dale 2014 was found in Kakoneni, Kilifi district, in 1962.

4. *Ficus bussei* Mildbr. & Burret

Tree 4.5-25m, bark grey, trunk fluted at base; aerial roots often present. Leafy twigs 4-12mm thick. Leaves ovate or elliptic, base cordate, apex obtuse, 9-22 by 4-11cm, glabrous or nearly so; petiole 2-8cm, puberulous. Figs in the leafaxils on 10-25mm long curved peduncles; basal bracts persistent, about 3mm long; figs green with whitish warts, globose, 10-18mm



across, puberulous.

K7; 1-450m; II-III, X, XII *

Riverine or coastal bushland.

Mugandi (DIG, GIR), Mumbalambale (ILW). String is made from the bark by the Giriama.

5. *Ficus capreifolia* Del.

(*F. capreaefolia*)

Map p. 325

Shrub or small tree, 3-4.5m. Leaves alternate or subopposite, elliptic, base rounded or cuneate, apex acute, margin sometimes slightly crenate, 6-15 by 2-5cm, sandpapery; petiole 3-12mm. Figs in the leaf-axils on 5-20mm long peduncles (including stipe); figs green or pale yellow, globose, 10-25mm across, sandpapery.

K12457; 1-1200m; I, VII, IX-XII *

Riverine.

Lojo (ILW), Get (LUO), Araba (ORM), Arabi sofarra (SOM), Edung, Epwatakela (TUR). Fruit edible; leaves used as sandpaper.

6. *Ficus chirindensis* C.C.Berg

Tree to 35m. Leaves elliptic, base cordate, apex short acuminate, 6-12 by 3-7.5cm, glabrous or nearly so; petiole 2-4cm. Figs on up to 3cm long spurs on older wood; peduncle 15-20mm; figs green to pale yellow, globose, 15-30mm across, minutely puberulous.

K4; about 1500m; V *

Riverine forest. Found once (Faden 67/149) near Thika.

7. *Ficus cordata* Thunb.

ssp. *salicifolia* (Vahl) C.C.Berg

(*F. salicifolia* Vahl)

Tree 1 to 15m; bark grey, smooth or wrinkled. Leaves narrowly ovate, or elliptic, base rounded or subcordate, apex obtuse, acute or short-acuminate, 7.5-16 by 3-7cm, glabrous; petiole 1.2-3.6cm. Figs in the leaf axils, sessile or on up to 3mm long peduncles; figs green to red, globose, 6-9mm across, glabrous.

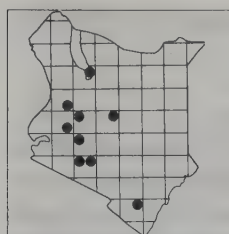
K123467; 950-1900m; I-II, IV, IX-XII

On rocks and cliffs, often near water.

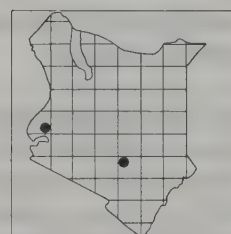
Siricho (BOR), Osugunuo (MAA), Simotuet (KIP), Tipoiwa (PKT). Fruit edible; latex used for attaching feathers to arrows (Pokot).

8. *Ficus craterostoma* Mildbr. & Burret

Shrub or tree to 10m, sometimes epiphytic, evergreen.



Ficus cordata



Ficus cyathistipula

Leaves obtriangular, base acute or obtuse, apex truncate or nearly so, 3-8 by 2-4.5 cm, glabrous; petiole 0.5-2 cm. Figs in the leaf axils, sessile, with persistent bracts; figs yellow or red, globose or ellipsoid, 5-10 mm across.

K7; 1-500 m; -*

Moist forest: Dzombo, Gongoni, Shimba Hills, Mangea, Benyagundo Hill, Rabai.

9. *Ficus cyathistipula* Warb.

(*F. rhynchocarpa* Mildbr. & Burret)

Tree 12-15m, occasionally epiphytic, evergreen; aerial roots may be present. Leaves shiny, obovate, base cuneate (rounded), apex acuminate, 6-22 by 3-7cm, glabrous; petiole 1.5-4cm; stipules persistent, partly connate, 1-2cm long. Figs in the leafaxils, on 5-25mm long peduncles, basal bracts persistent, 4mm long; figs 2-3cm across, with protruding apex.

K345; 1450-1650m; I, III, X *

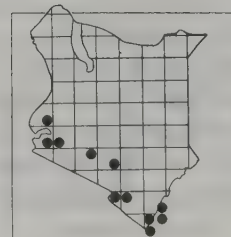
Forest (edge), occasionally riparian.

10. *Ficus exasperata* Vahl

Tree 4-27m, bark whitish. Leaves elliptic or slightly (ob)ovate, base cuneate or obtuse, apex short-acuminate (rounded), margin dentate or subentire, 2.5-12 by 1-6cm (coppice shoots to 21x12 and 3-lobed?), sandpapery; petiole 5-25mm. Figs in leafaxils or on older wood, on peduncles 5-25mm long; figs yellow or red, 8-17mm across, sandpapery.

K457; 1-1850m; II-III, VI-VIII, XI *

Wet forest (edge) or limestone outcrops.



Ficus exasperata

Jamisyat (KIP), Lisenia (KIS), Museno (LUH). Leaves used as sandpaper.

11. *Ficus faulkneriana* C.C.Berg

Tree 9-30m, possibly epiphytic? Leaves elliptic or obovate, base rounded or subcordate, apex rounded, 4-7.5 by 2-4.5cm, glabrous; petiole 0.5-1.5cm. Figs in leaf-axils on 10-12mm long peduncles; basal bracts 1.5-2mm long, persistent; figs yellow or red, globose, 7-8mm across, glabrous.

K7; 420m; II *

Found once (Magogo & Glover 51) in Shimba Hills in forest edge. Endemic to Kenya and Tanzania.

12. *Ficus glumosa* Del.

(*F. sonderi* Miq.)

Shrub or tree 2-15m, spreading, with smooth grey bark; sometimes with aerial roots. Leaves ovate or elliptic, base cordate, apex rounded, obtuse, or short-acuminate, 2.5-14 by 2-9cm, (densely) pubescent or glabrous; petiole 0.3-3.5(4.5)cm. Figs in the leaf-axils or somewhat below the leaves, sessile or on peduncles to 3mm; basal bracts persistent, 3mm long; figs orange or red, globose, 5-12mm across, tomentose to glabrous. K1234567; 450-2050m; I-XI, XII *

Rocky outcrops and hillsides, mainly in dry country. Kilta (BOR), Kiltaa (GAB), Kionywe (KAM), Chilgotwet (KIP), Olingaboli (MAA), Berde (SOM), Kishoe (TAI), Ebiong (TES). Fruit edible.

13. *Ficus ingens* (Miq.) Miq.

Shrub or tree, 1-7m, sometimes epiphytic, spreading, sometimes with aerial roots. Leaves ovate or elliptic, base cordate or rounded, apex obtuse, acute or shortly acuminate, 5-17 by 2-8cm, more or less glabrous; petiole 0.5-4cm. Figs in the leaf-axils or just below the leaves, subsessile or on peduncles to 5mm long; figs pink, red or purple, globose, 6-12mm across, wrinkled when dry, glabrous or pubescent.

K234567; 100-2600m; I-II, IV-XII.

On rocky sites, on lava (often the only tree species), in rocky riverine gorges, always in dry country.

Onogoret (MAA), Chemul-mogoyuet (KIP), Kionywe (KAM). Wood is used to make doors and stools by the Kipsigis, and branches are used as firesticks; Pokot use a bark infusion to stop diarrhoea. The "lone tree" in Nairobi National Park was this species.

14. *Ficus lingua* De Wild. & Th. Dur.

ssp. depauperata (Sim) C.C.Berg

(*F. depauperata* Sim)

Tree to 25m, often epiphytic, much branched and spreading; bark smooth, grey. Leaves obovate, base cuneate or obtuse, apex obtuse or rounded, 2-6 by 0.8-2cm, glabrous; petiole 0.2-0.8cm. Figs in leaf-axils or just below leaves, on 1-5mm long peduncles; figs yellow or red, globose, 4-6mm across, minutely puberulous.

K7; 1-350m; VII-VIII, X *

Semideciduous coastal forest.

15. *Ficus lutea* Vahl

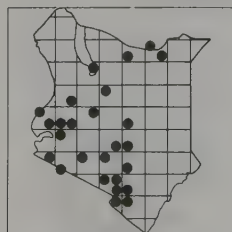
[*F. quibeba* Ficalho; *F. subcalcarata* Warb. & Schweinf.; *F. vogelii* (Miq.) Miq.]

Tree to 16(36?)m, evergreen, occasionally epiphytic, spreading; may have aerial roots; bark greybrown. Leafy twigs 5-20mm thick. Leaves elliptic, base rounded or subcordate, apex rounded or shortly acuminate, 9-25(40) by 4-15 (18)cm, glabrous or pubescent; petiole 1.5-12cm. Figs in leaf-axils or just below the leaves, sessile; basal bracts 3-6mm long, persistent; figs yellow or orange, globose, 12-17mm across, puberulous or pubescent.

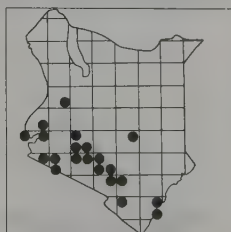
K4567; 1-2000m; III, V, IX-XII *

Wetter forests (edges), riverine forest or woodland, occasionally on rocks.

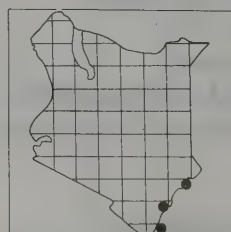
Mkuyu (DIG).



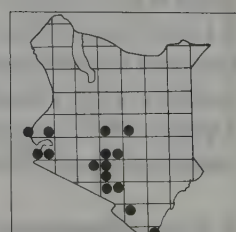
Ficus glumosa



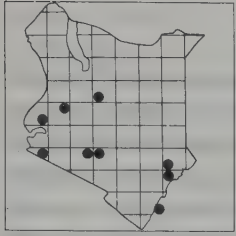
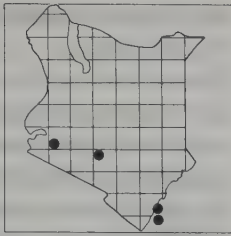
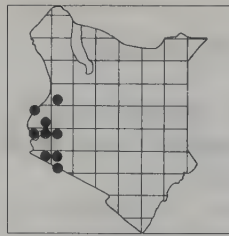
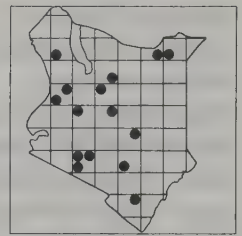
Ficus ingens



Ficus lingua



Ficus lutea

*Ficus natalensis**Ficus ottoniifolia**Ficus ovata**Ficus populifolia***16. *Ficus natalensis* Hochst.**

Tree 5-30m, often epiphytic, evergreen. Leaves elliptic or obovate, base cuneate or obtuse, apex obtuse, rounded, or shortly acuminate, 3-10 by 1.5-4.5cm, glabrous; petiole 0.5-2cm. Figs in leaf-axils or just below the leaves, on 2-10mm long peduncles; basal bracts caducous; figs yellow to red, globose and often stipitate, 8-18mm across, glabrous, usually wrinkled when dry.

K134567; (1)900-1800m; I-IV, VII-X, XII.

Riverine and groundwater forest; presumably also in forest away from water, but not so recorded.

Kiumo (KAM), Mugumo (KIK, STAND).

Often confused with *F. thonningii*, *F. natalensis* is much less common in Kenya.

17. *Ficus nigropunctata* Mildbr. & Burret

Shrub or tree 3-7m, sometimes epiphytic. Leaves elliptic or (ob)ovate, base rounded to subcordate, apex acute or shortly acuminate, margin crenulate, 1-9.5 by 0.5-5.5cm, puberulous, when dry sometimes black-punctate; petiole 0.3-2cm. Figs in leaf-axils or on older wood, sessile; basal bracts 2-2.5mm long, persistent; figs green to reddish, globose, 5-10mm across, puberulous.

K4; ?900m; XI *

Found once (Gatheri, Mungai & Kanuri 79/124) near Mutomo on rocky ground.

18. *Ficus ottoniifolia* (Miq.) Miq.

ssp. ulugurensis (Mildbr. & Burret) C.C.Berg

Shrub or tree to 15m, sometimes epiphytic. Leaves elliptic or (ob)ovate, base rounded to subcordate, apex acuminate, 6-15 by 3-6cm, glabrous; petiole 1.5-5cm. Figs on spurs to 15mm long on older wood, peduncle 8-18mm; basal bracts 2-3mm, persistent; figs green to pale orange, ellipsoid, 12-18mm across, glabrous.

K47; 1-1450m; I, XI *

Riverine forest, seaside on coral, or on limestone

outcrops inland. Rare; endemic to East Africa.

19. *Ficus ovata* Vahl

(*F. brachypoda* Hutch.)

Tree, 3.5-15m, sometimes epiphytic; bark pale grey or reddish brown. Leaves ovate or elliptic, base rounded or subcordate, apex acuminate, 10-30 by 6-20cm, glabrous (puberulous) beneath; petiole 3-10cm. Figs in the leaf-axils or on older wood, on a peduncle 0-5mm long; basal bracts 3-4mm long, persistent; figs green, ellipsoid or ovoid, 15-25mm across, puberulous or pubescent.

K356; 1100-1950m; V-VI, XI *

Acacia-Terminalia wooded grassland; also reported as riparian.

Chemul-Mogoywet (KIP), Omododo (LUH), Bongu (LUO), Siritiot (NAN); used for making stools and doors by the Kipsigis.

20. *Ficus pólita* Vahl ssp. *polita*

Tree 4.5-15m, sometimes epiphytic; bark grey. Leaves ovate, base rounded or (sub)cordate, apex acuminate, 5-16 by 4-10cm, glabrous; petiole 2-12cm. Figs on up to 3cm long spurs on older wood, peduncles 8-18mm; basal bracts 3-5mm, persistent; figs green with yellow specks to purplish, globose, 15-22(40)mm across, wrinkled.

K47; 1-1150m; IV *

Found near Kibwezi (Verdcourt & Polhill 2689), Watamu and Kilifi, in bushland.

21. *Ficus populifolia* Vahl

[*F. arbutifolia* (Miq.) Miq.]

Shrub or tree, 1-15m, bark grey or off-white; leafy twigs 3-10mm thick. Leaves broadly ovate, base deeply cordate, apex acuminate, 3-18 by 3-15cm, glabrous or nearly so; petiole 2.5-10cm. Figs in leaf-axils, on 8-20mm long peduncles; figs green with red spots or yellowish, slightly obovoid, 6-12mm across,

glabrous or nearly so.

K123467; 450-1500m; I, III, V-VII, IX-X, XII

On rocks and lava.

Olooli (MAA), Sosotwo (POK), Balambal (SOM), Ekuyen/Ekii (TUR), Simatwa/Chirilotwa (TUG). Fruit edible. Tugen use the latex for sore eyes.

Note: Berg in FTEA considers *F. arbutilifolia* as distinct (hairy leaves as opposed to glabrous in *F. populifolia* s.s.) and this taxon then occurs near Lodwar.

22. *Ficus sansibarica* Warb.

Tree 9-20m, sometimes epiphytic. Leaves elliptic or ovate, base rounded, apex obtuse or obtusely acuminate, 5-13 by 2-6cm, glabrous; petiole 1-5.5cm. Figs on up to 3.5cm long spurs on the main branches, peduncle 10-25mm long; figs green or purplish, globose, 15-30mm across, puberulous, wrinkled.

- ssp. *sansibarica* (*F. brachylepis* Hiern): K7; 1-150m; X*. Evergreen forest edges. Musangasanga (GIR).

-s sp. *macroserma* (Mildbr. & Burret) C.C. Berg: recently found at Mosocho, K5 (Bro. J. Maas in Card. Otunga High School 544). It differs from ssp. *sansibarica* in its longer spurs (-10cm).

23. *Ficus saussureana* DC.

(*F. eriotryoides* Kunth & Bouché)

Tree to 20m (or more?), sometimes epiphytic; crown spreading. Leafy twigs 5-15mm thick. Leaves slightly obovate, base obtuse or cuneate, apex acuminate, 13-50 by 3-17cm, puberulous beneath; petiole 1-8cm. Figs in the leaf-axils just below the leaves, subsessile; basal bracts 7-15mm long, persistent; figs yellow or orange, globose or obovoid, 15-30mm across, densely long-hairy.

K5; about 1600m; I *

Collected once (Gilbert 6363) in Kakamega forest.

24. *Ficus scassellatii* Pamp.

(*F. kirkii* Hutch.)

Tree to 25m (or more), sometimes epiphytic; aerial roots may be present; bark grey or whitish. Leaves elliptic or obovate, base cuneate, apex obtuse or shortly acuminate, 6-28 by 3-8cm, glabrous; petiole 0.5-3cm. Figs in leaf-axils, sessile (ssp. *thikaensis*) or on a peduncle 5-15mm long (ssp. *scassellatii*); basal bracts 3-5mm long, persistent; figs pale green, globose or ellipsoid, 12-20 (ssp. *scassellatii*) or 20-30 (ssp. *thikaensis*)mm across, almost glabrous.

K1467; 1-1800m; I-III, IX-XII *

Riverine or groundwater forest, on the coast also in evergreen forest.

Mvumo (TAV).

Note: ssp. *thikaensis* C.C.Berg only occurs around Thika.

25. *Ficus stuhlmannii* Warb.

Tree to 10m, sometimes epiphytic. Leafy twigs 4-8mm thick. Leaves elliptic or (ob) ovate, base rounded or subcordate, apex rounded or obtuse (or shortly and bluntly acuminate), 3-18 by 3-8cm, densely puberulous; petiole 0.5-4cm. Figs in the leaf-axils, (sub) sessile; figs pink or purplish, globose or ellipsoid, 7-18mm across, puberulous or pubescent.

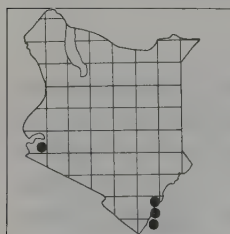
K3467; 1-1500m; I-II, V, X *

Open forest or bushland, but information from Kenya is scarce. In other countries often riverine or on rocks.

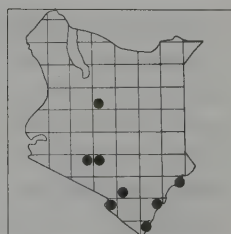
26. *Ficus sur* Forssk.

(*F. capensis* Thunb.)

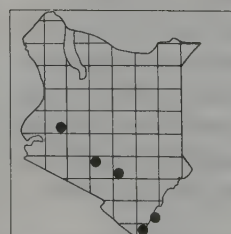
Tree 4.5-25m, sometimes epiphytic; buttresses may be present; bark grey or whitish. Leaves ovate or elliptic, base rounded or subcordate, apex acute or acuminate, margin repand-dentate or occasionally entire, 5-20 by 3-13cm, glabrous, pubescent or sandpapery; petiole 1.2-8cm. Figs on leafless branches up to 50cm long on old wood, peduncles 3-15mm long; figs orange or red,



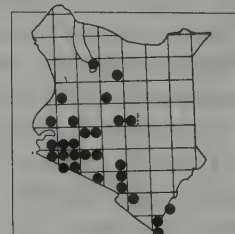
Ficus sansibarica



Ficus scassellatii



Ficus stuhlmannii



Ficus sur

globose or obovoid, often stipitate, 5-33mm across, puberulous or densely tomentose.

K134567; 1-2100m; I-XII.

Riverine forest and bush, groundwater forest, less often in forest away from water.

Odaa (BOR), Mukuyu (DIG, KIK), Mogoyuet (KIP), Omoraa (KIS), Musingu (LUH), Ngowo matundo (LUO), Olngaboli (MAA), IIngaboli, Jebetit (SAM). Fruit edible; Digo use root decoction as cough remedy; Maasai use a bark infusion against stomachache and babies' diarrhoea; Kipsigis use wood for stools and grain mortars.

27. *Ficus sycomorus* L.

[*F. gnaphalocarpa* (Miq.) A.Rich.; *F. mucoso* sensu KTS, non Ficalho]

Tree to 21m, occasionally buttressed, bark yellowish. Leaves broadly (ob) ovate or elliptic, base (sub) cordate, apex rounded or obtuse, margin entire or slightly repand-dentate, 2.5-13(21) by 2-10(16)cm, sandpary at least above, petiole 0.9-5cm. Figs in leaf-axils or on up to 10cm long leafless branches on old wood; peduncle 3-25mm; figs yellow or reddish, globose or (ob)ovoid, 14-37mm across, pubescent or almost glabrous.

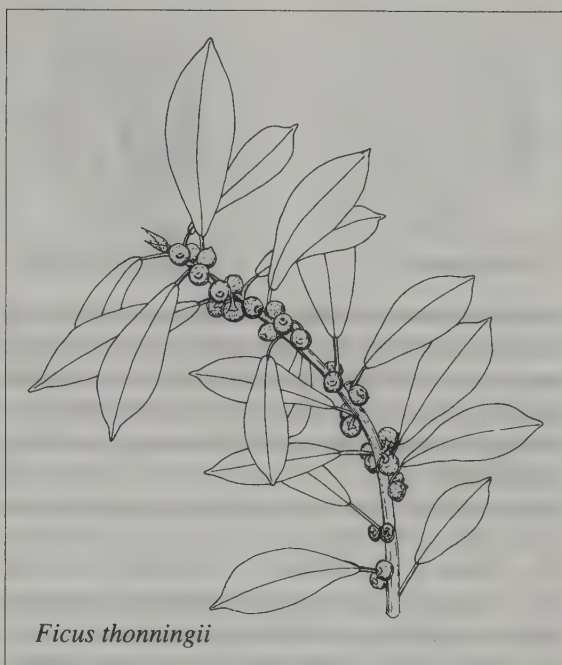
K1234567; 1-1850m; I-XII

Riparian, or in places with high groundwater table; ? also in forest or bushland.

Mukuyu (SWA, KAM, KIK, MER, TAI), Od (BOR), Mokoyo (ILW), Mogoiwet (KIP), Orng'aboli (MAA), Sebetwet (NAN), Odha (ORM), Mokongwa (PKT), Santau, Guuden (REN), Lngaboli (SAM), Bardah (SOM), Lokoiwo (TUG), Echoke (TUR). Fruit edible. Wood used for small implements, e.g. mortar & pestle (Tur., Pok.) or for doors and house building (Kip.); inner part of root used for fibre for weaving (Tai.).

28. *Ficus thonningii* Bl.

[*F. dekdekana* (Miq.) A.Rich., *F. eriocarpa* Warb., *F.*



Ficus thonningii

mammigera RE Fr.]

Tree 6-21m, sometimes epiphytic, evergreen; bark grey; aerial roots often present. Leaves elliptic or obovate, base cuneate or obtuse (sometimes subcordate), apex rounded or obtuse, sometimes shortly and bluntly acuminate, 3-12.5 by 1.5-6cm, glabrous, puberulous or pubescent; petiole 0.8-3(6)cm. Figs in leaf-axils, sometimes below the leaves, sessile or on peduncles to 10mm long; basal bracts 2-4mm long, persistent; figs yellow or red, globose or ellipsoid, 7-14mm across, smooth or warted, glabrous or pubescent.

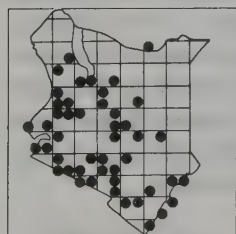
K1234567; 1050-2400m; I-VI, VIII-XII

Wet or dry upland forest, often left standing after clearing; riverine, on rocky sites, bushed or wooded grassland (forest relict?).

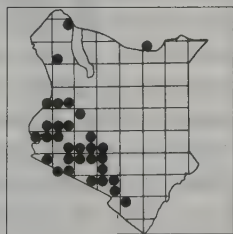
Mugumo (EMB, KIK, MER, STAND), Dambi (BOR), Kiumo, Muumo (KAM), Simotwet (KIP), Pocho (LUO), Oreteti (MAA), Sapoitit (OKIEK). A ceremonial tree in more than one culture (Kik., Bor.). Fruit edible. Bark fibre used for string (Okiek); branches used as firesticks (Maa).

29. *Ficus tremula* Warb.

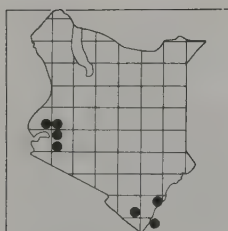
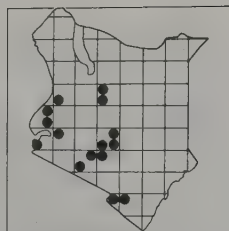
Tree or liana, 2.4-10m (or more), sometimes epiphytic. Leaves elliptic or obovate, base rounded or



Ficus sycomorus



Ficus thonningii

*Ficus tremula**Ficus vallis-choudae*

subcordate, apex subacute to shortly acuminate, 3-11 by 2-5cm, glabrous or with only the midrib puberulous; petiole 1-4.5cm. Figs on up to 2 cm long curved spurs on older wood, peduncles 5-22mm long; figs green, globose or ellipsoid, 10-20mm across, glabrous or puberulous.

- ssp. *tremula* - twigs drying yellowish or grey, leaves drying dark brown above.

K7; 1-500m; I, VII, X, XII *

Dry evergreen forest or coastal woodland; a common epiphyte in *Hyphaene*; also very close to beach.

Uzi (SWA); bark used for making very strong string.

- ssp. *acuta* (De Wild.) C.C.Berg

K35; 1650-2200m; III, XII *

Wet upland forest.

Motirtiruet (KIP), Shikuyense (LUH).

30. *Ficus vallis-choudae* Del.

Tree 6-20m, bark greybrown; buttresses sometimes present. Leafy twigs 2-10mm thick. Leaves broadly ovate, base rounded or cordate, apex obtuse, acute or shortly acuminate, margin repand-dentate or subentire, 10-26 by 6-24cm, glabrous or puberulous, rarely sandpapery; petiole 2-11cm. Figs in the leaf-axils or just below the leaves, peduncle 3-7mm long, 4-6mm thick; figs yellow or reddish, globose or obovoid, 20-45mm across, glabrous, puberulous or tomentose.

K1234567; 600-1800m; I-IV, VI-VIII, X, XII

Riverine.

Ongaboli (MAA), Ng'ou (LUO), Msingo (LUH).

Wood used for cheap furniture.

31. *Ficus vasta* Forssk.

(*Ficus wakefieldii* Hutch.)

Tree to 25m, sometimes epiphytic, much spreading. Leafy twigs 5-12mm thick. Leaves broadly elliptic or broadly (ob-) ovate, base cordate, apex rounded or obtuse, 6-19 by 5-28cm, puberulous or hirtellous; leaves (faintly) aromatic, at least when dry; petiole 2-

9cm. Figs in leaf-axils, (sub) sessile; basal bracts 3-5mm long, persistent; figs green with white spots, globose, 10-16mm across, densely pubescent, sometimes warted.

K123467; 50-2000m; I-IV, VI, IX-XII

On rock, lava, and limestone; occasionally riverine, Kilita (BOR), Mumbu, Mukuyu (KAM), Beriotwa (MAR), Cheptokelat (PKT), Reteti (SAM), Berd (SOM), Echoge (TUR). Fruit edible.

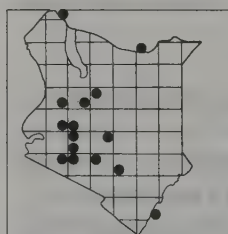
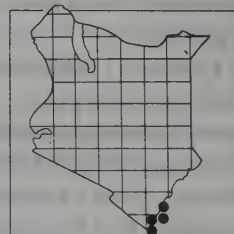
Note: Berg in FTEA maintains *F. wakefieldii* as distinct from *F. vasta*; the difference being the persistent or caducous basal bracts.

32. *Ficus verruculosa* Warb.

Shrub or treelet 1-7m, evergreen. Leaves elliptic, base obtuse or cuneate, apex obtuse or subacute, 3.5-10 by 1.5-3.5cm, glabrous; petiole 0.3-1cm. Figs in leaf-axils or just below the leaves, peduncle 3-5mm; figs red or purple, (sub) globose, 5-10mm across, glabrous or nearly so.

K3; 1860m; V *

Found once (Bogdan 3733) in a swamp near Kitale. Mukavakava (LUH).

*Ficus vasta**Maclura africana*

4. MACLURA

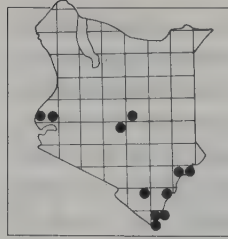
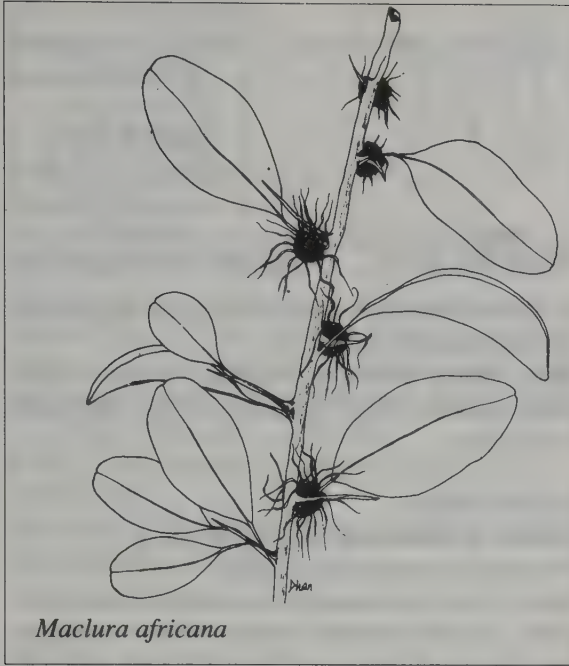
Maclura africana (Bureau) Corner

(*Cardiogyne africana* Bureau)

(Scandent) shrub or tree, 1.2-7m tall; bark brown or fissured; branches spiny, horizontally spreading. Spines 0.7-8.5cm long, straight, occasionally with leaves. Leaves ovate, elliptic, or slightly obovate, base cuneate, apex obtuse or slightly emarginate, 4-9 by 2-4.5cm, glabrous or sparsely puberulous beneath. Flowers dioecious, in axillary clusters to 13mm in diameter, white or yellow-green, shortly (2-6mm) pedunculate; flowers with long-exserted styles. Fruiting heads to 18mm in diameter, yellow-green, edible.

K7; 1-100m; III-VI, VIII *

Dry forest or scrub near the sea.

*Milicia excelsa**Morus mesozygia*

young trees sandpapery above and pubescent beneath, serrulate at the margin and up to 25 by 12cm; in mature trees elliptic or ovate, base subcordate, apex shortly acuminate, 9-11 by 5-7.5cm, glabrous above, densely puberulous beneath. Flowers dioecious and axillary. Male spikes pendulous, to 15cm long, slender; female spikes erect, to 7cm long, stout. Fruiting head green, mulberry-like, up to 6 x 2cm.

K457; 1-1350m; II-III *

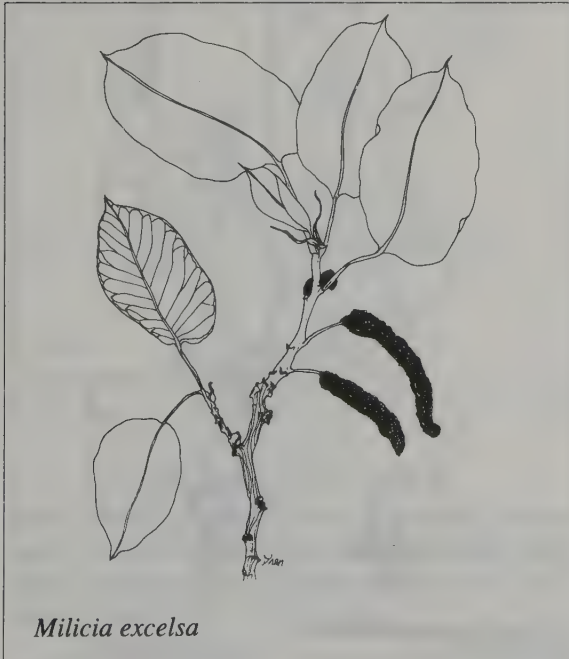
Moist forest (relicts) and wooded grassland.

Iroko (STAND), Mvuli (tTRADE, SWA), Manurui (BON), Mvuli (KAM), Murumba (LUH), Olua (LUO), Mururi (MER), Mvure (TAV). An excellent timber, becoming rare due to overexploitation.

5. MILICIA

Milicia excelsa (Welw.) C.C. Berg
(*Chlorophora excelsa* Welw.)

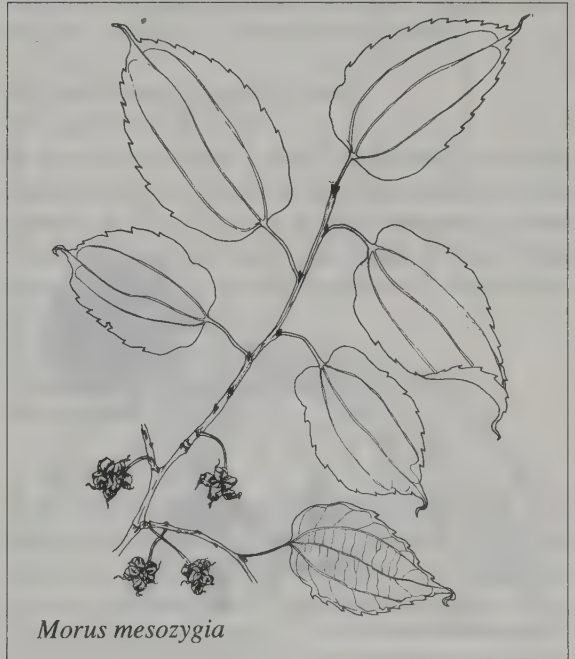
Tree to 30(50)m with straight bole; buttresses small or absent; bark pale ash-grey to nearly black. Leaves in



6. MORUS

M. mesozygia Stapf.

[incl. *M. lactea* (Sim) Mildbr.]



Tree to 24m with umbrellashaped crown; bark smooth, pinkish grey with white blotches, with vertical lines of large lenticels. Leaves ovate or elliptic, unequalsided, base rounded or subcordate, apex caudate-acuminate, 5-7.5 x 3-5.5cm, glabrous or pubescent on the veins. Flowers dioecious; male flowers in catkins, 1-2.5cm; female flowers capitate, 1-3 together, on a stalk to 2.5cm long. Fruit green, dry, 5 by 3-5mm.

K5, 7? (see note); 1200-1650m; - *

Moist forest.

East African mulberry (TRADE), Munuku (LUH).

Wood used for furniture.

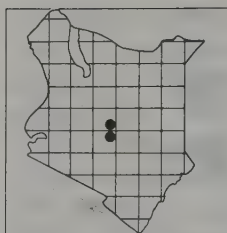
NOTE: Templer 153/53 from Gogoni forest (K7) is sterile, but presumably this species.

7. MYRIANTHUS

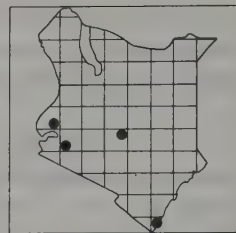
Myrianthus holstii Engl.

Tree to 15m (or more), evergreen; bark smooth, light brown. Leaves digitately compound with (3) 5-9 leaflets; leaflets elliptic or obovate, margin dentate, base cuneate, apex short-acuminate, 20-35 by 7-16cm, densely white-pubescent beneath. Inflorescences in pairs at leafaxils, branched, on a common peduncle 23-55mm long, consisting of many short "catkins". Fruits to 4cm across, yellowish brown.

K4; 1500-2100m; - *



Myrianthus holstii *Trilepisium madagascariense*



In moist forest, often near rivers, in the Nyambeni/ Meru/Kiangombe area.

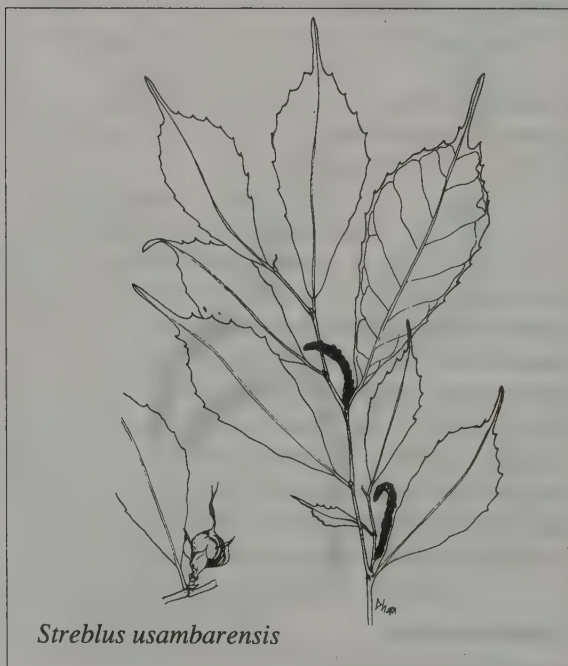
Giant Yellow Mulberry (STAND), Mutuya (KIK, MER), Saoune (KIP). The fruit is edible. The wood is perishable.

8. STREBLUS

Streblus usambarensis (Engl.) C.C. Berg

(*Sloetiopsis usambarensis* Engl.)

Shrub 1-3m (once reported as scandent to 4m), evergreen. Leaves obovate, roughly dentate at margin, base cuneate to narrow and rounded, apex narrowly acuminate, 7-17 by 2-6.5cm, glabrous except for the veins and midrib. Flowers monoecious, axillary; male flowers in catkins to 30 x 3mm; female flower solitary, small, white. Fruit to 10 by 8mm, white, with enlarged calyx.



K7; 1-450m; II, XI-XII *

Moist forest on sand or limestone: Mombasa-Kilifi area and Dzombo.

9. TRILEPISIUM

Trilepisium madagascariense DC.

(*Bosqueia phoberos* Baill.)

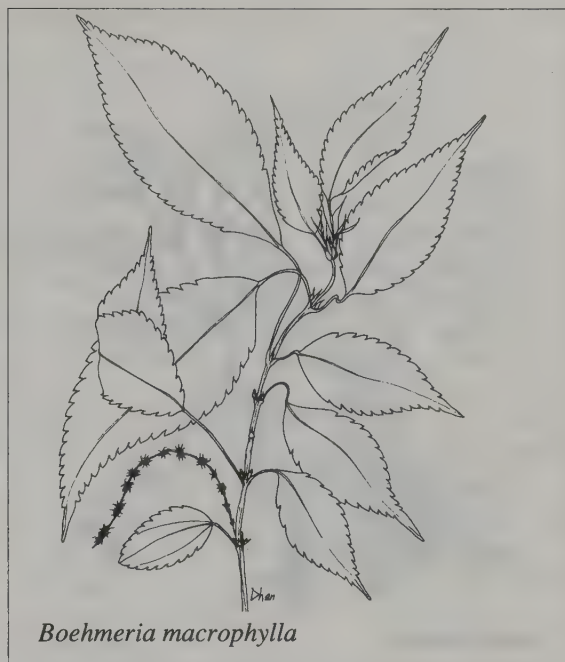
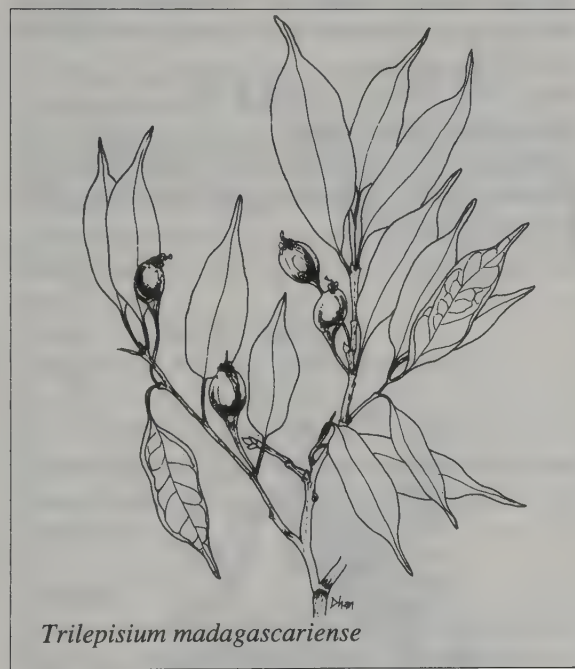
Tree, 10-25(35)m, evergreen; not buttressed, crown dense and narrow; bark smooth, grey. Leaves elliptic or slightly obovate, base cuneate, apex abruptly acuminate, 6-15 by 2.3-5.5cm, glabrous. Flowers in axillary, solitary, cuplike receptacles, to 8mm across, with many male and a single female flower. Fruit swollen, 1-seeded, to 2cm across, dark purple.

K3457; 1-400m (coast), 1150-1800m; XII *

Moist forest.

Mugwi (TRADE). Wood perishable, moderately tough.

The sap yields a red dye.



- * Leaves alternate 2
- 2. Leaves lobed; shrub or tree 2. *Obetia*
- * Leaves not lobed; shrubs or climbers 3. *Urera*

1. BOEHMERIA

Shrubs. Stipules caducous. Leaves opposite, often different in size. Inflorescence spike-like.

Boehmeria macrophylla Hornem.

(*B. platyphylla* D. Don)

Woody herb or shrub, 1-3m. Leaves ovate or elliptic, base cuneate or rounded, apex acuminate, margin dentate, 5-20 by 2-7.5cm, slightly sandpapery; basal veins reaching into upper half of leaf. Flowers tiny, greenish, in spike-like inflorescence 10-40cm long. Fruit about 2mm long.

K5; 1500-1800m; V, VIII, XI *

Known from Kakamega and Malaba forests.

Isambakhalu (LUH).

2. OBETIA

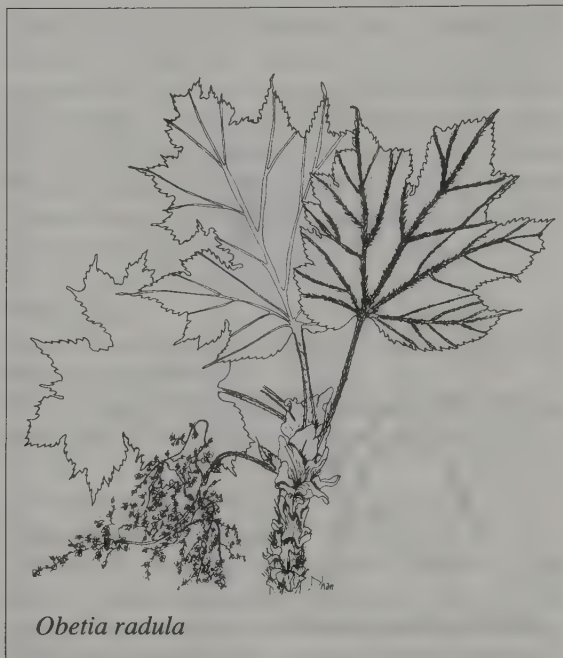
Trees or shrubs, softwooded. Leaves alternate, with long-persistent stipules. Inflorescences of lax cymes, dioecious. Male flowers 5-merous, female ones 4-merous, persisting in fruit and then increasing in size. Fruit a compressed achene.

169. URTICACEAE

Herbs, shrubs or (rarely) trees, often with stinging hairs. Leaves stipulate. Inflorescence cymose, often condensed into heads. Flowers monoecious or dioecious. Fruit usually a dry achene.

1. Leaves opposite

1. *Boehmeria*

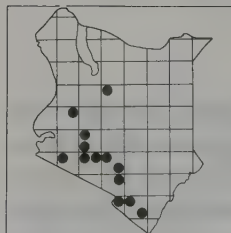
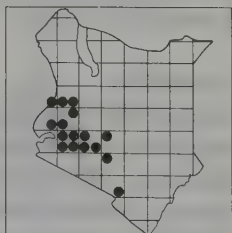
*Obetia radula****Obetia radula* (Bak.) Jackson***(O. pinnatifida Bak.)*

Shrub or tree 3-9m, with the habit of a pawpaw; bark smooth, light grey; nasty stinging hairs on stem and leaves. Stipules to 15 by 15mm. Leaves deeply lobed to pinnatifid, base cordate, margins coarsely crenate, 7-36 by 5-30cm; venation palmate. Flowers yellow-green, in cymes to 10cm (male) or 15-30cm (female). Fruit tiny.

K13467; 500-1900m; II-IV, IX-XII *

In bushland on rocky slopes.

Stinging Nettle Tree (STAND), Dorewa (KAM), Nakule (REN), Ikope (TAI), Elil (TUG). Stem fibres used to make rope for weaving; a root infusion is given to barren women by the Tugen.

*Obetia radula**Urera hypselodendron***3. URERA**

Woody climbers or shrubs. Leaves alternate; stipules caducous. Flowers dioecious, in lax cymose panicles; male flowers 4-5-merous, female ones 4-merous. Fruit with fleshy sepals, small.

1. Leaf margin entire; leaf with up to 3 main veins on each side **3. *U. trinervis***
- * Leaf margin (minutely) toothed; leaf with more than 4 veins on each side **2**
2. Stinging hairs present; coastal species **2. *U. sansibarica***
- * Stinging hairs absent; inland species **1. *U. hypselodendron***

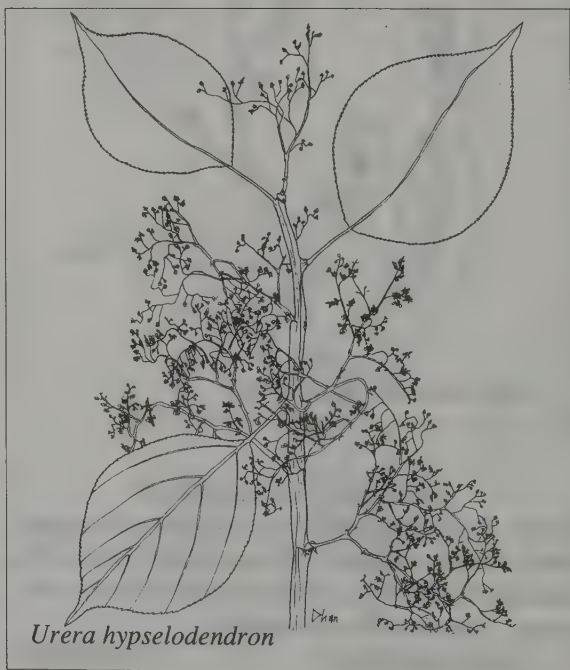
1. *Urera hypselodendron* (A.Rich.) Wedd.

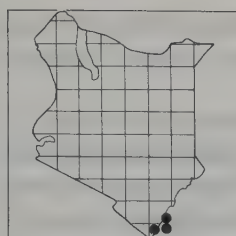
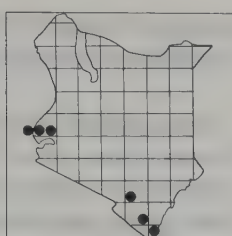
Woody climber 2-15m, often hanging down in festoons from large trees; stems semi-succulent; bark corky. Leaves elliptic or ovate, base rounded or cuneate, apex acuminate, margins serrate, 5-16 by 2.5-10cm, pubescent or slightly so. Flowers green, tiny, in pink-orange inflorescences 2-8cm long, often on older wood. Fruit orange.

K345; 1550-2850m; I-V, VIII, X-XII

Moist upland forest (edges)

Nyandetu (KIK), Kipsotet (KIP), Muyuch (LUH), Olnyaan (MAA). Decoction used as a tonic; stem fibres used for sewing.

*Urera hypselodendron*


Urera sansibarica

Urera trinervis

2. *Urera sansibarica* Engl.

(*U. fischeri* Engl. is probably this species)

Liana to 3 (+?)m. Stems with reddish brown, peeling bark with stinging hairs. Leaves ovate or elliptic, base (sub) cordate or truncate, apex acute or acuminate, margins serrate, 7.5-15 by 5-10cm, whitish-pubescent. Flowers in panicles to 10 cm long.

K7; 1-500m; IV, VI, X-XII*

Moist forest, or on limestone outcrops.

Mwadzani (DIG), Siwan-Belion (KIP), Onogorre (MAA).

3. *Urera trinervis* (Hochst) Friis & Immelman

(*U. cameroonensis* Wedd.)

Climber to 10(+?)m, sometimes with adventitious roots on stems. Leaves (broadly) elliptic or ovate, base cuneate or rounded, apex acuminate, 5-12 by 3-8cm, glabrous or nearly so; basal veins reaching into upper half of leaf. Flowers yellowish, in panicles to 3cm long.

K567; 1-1600m; IV, XII *

Along rivers and lakes or in forest (edges).

171. AQUIFOLIACEAE

Trees or shrubs. Leaves alternate (rarely opposite); stipules small, often caducous. Flowers regular. Fruit a drupe.

1. ILEX

Inflorescence of axillary, usually fascicled cymes, dioecious. Sepals 4-6, petals 4-6. Male flowers with 4-6(9) stamens, female flowers with staminodes.

Ilex mitis (L.) Radlk.

Shrub or tree 4-18m, evergreen; in large trees buttresses may be present; bark smooth, light grey. Leaves elliptic or slightly obovate, base obtuse or cuneate, apex acute, rounded or apiculate, margin entire or toothed, 2.5-11 by 1.3-5cm, glabrous. Flowers white,

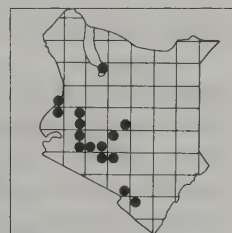

Ilex mitis

in cymes on 1-15mm long peduncles; petals to 3.5 by 1.5mm. Fruit yellow to red, globose, 4-7mm across, with persistent stigma.

K134567; 1450-3150m; I-IV, VI, XI-XII.

Moist (or dry) upland forest, also riverine forest.

Munyamatj, Musumura (KIK), Murati (MER), Seger (MAR, SEB), Tongotuet (KIP, NDO), Lchenioibor (SAM). Wood hard. Honey much prized.


Ilex mitis

173. CELASTRACEAE

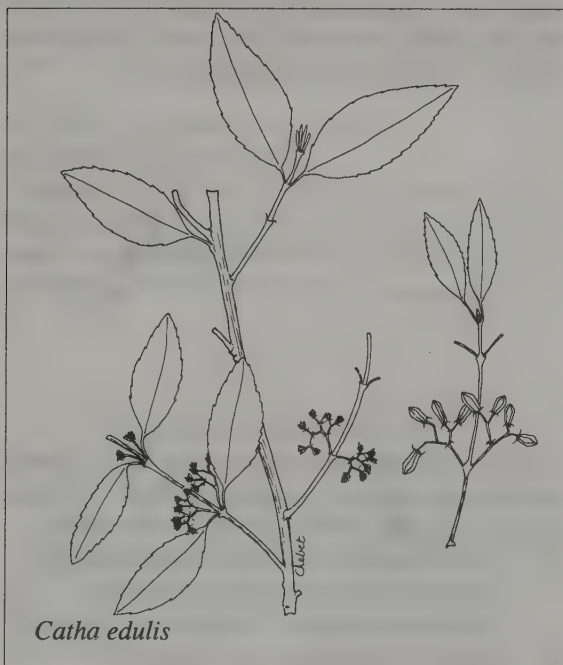
Leaves alternate, opposite or fasciculate; stipules caducous or absent. Sepals 4-5; petals 4-5, free; stamens 3-5; disk usually present. Fruits various.

1. Leaves opposite on flowering shoots (may be alternate on young or climbing shoots) 2
- * Leaves alternate or in bunches on all branches 7
2. Lianas or (climbing) shrub; stamens 3 3

- * Trees or shrubs; stamens 4-5 4
- 3. Inflorescence usually sessile, fasciculate; fruit a globose drupe 7. *Salacia*
- * Inflorescence stalked, dichasial; fruit of 3 mericarps 3. *Hippocratea*
- 4. Leaf margin entire 5
- * Leaf margin (minutely) toothed or lobed 6
- 5. Fruit with persistent lateral style; leaves with (usually) acuminate apex; flowers in dense clusters 6. *Pleurostylia*
- * Fruit with terminal style scar; leaves with obtuse or spiny-acute apex; flowers in loose cymes 2. *Elaeodendron*
- 6. Fruit a red, 3-valved capsule; sepals with hairy margins 1. *Catha*
- * Fruit a white drupe; sepals glabrous 2. *Elaeodendron*
- 7. Fruit a dehiscent capsule; spines often present; stamens with persistent anthers, or flowers red 4. *Maytenus*
- * Fruit a rather fleshy, indehiscent drupe; spines absent; stamens with deciduous anthers 5. *Mystroxylon*

1. CATHA

Leaves opposite on flowering shoots, alternate on vegetative shoots; stipules caducous. Inflorescence



axillary, dichasial. Flowers bisexual, sepals 5, stamens 5. Fruit a 3-valved capsule. Seeds 1-3, winged.

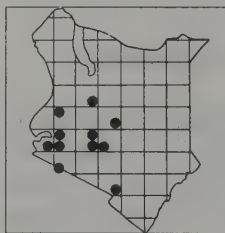
Catha edulis (Vahl.) Endl.

Shrub or tree (2)9-12m, evergreen; bark greygreen (later red?). Leaves narrowly elliptic, base cuneate, apex acute, acuminate or obtuse, margin glandular dentate-serrate, 3-10 by 1-4cm (larger in saplings), glabrous. Flowers white to yellow, in dichasia 1-3cm long; flowers to 1.5mm. Fruit red, ellipsoid, 6-16 by 3-4mm.

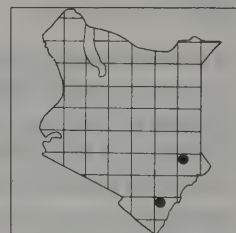
K13456; 1200-2400m; I, III-V, VIII-IX, XI *

Evergreen forest, riverine forest, or thickets in *Combretum* wooded grassland.

Miraa, Khat, Somali Tea (TRADE), Mailungi, Muirungi (KIK), Ol-Merra (MAA), Liss (MAR), Tomayot (KIP, NDO), Mamiraa (SAM), Kat (SOM). Young shoots are chewed as a stimulant; wood hard and strong, used for building and furniture.



Catha edulis



Elaeodendron aquifolium

2. ELAEODENDRON

Leaves opposite, sometimes alternate on young shoots, stipules caducous. Inflorescence axillary, dichasial. Flowers uni- or bi-sexual. Sepals, petals and stamens 4-5. Fruit a drupe, 1-2 seeded.

- 1. Leaves lobed and spiny 1. *E. aquifolium*
- * Leaves not lobed 2
- 2. Coastal plants 3
- * Inland plants 4
- 3. Leaves 2-7cm long; petals to 2.5mm long; common near the sea 4. *E. schweinfurthianum*
- * Leaves 3.5-13cm long; petals to 3mm long 3. *E. schlechteranum*
- 4. Leaf teeth incurved; fruit yellow; common 2. *E. buchananii*



* Leaf teeth spreading ; fruit white; rare

3. *E. schlechteranum*

1. *Elaeodendron aquifolium* (Fiori) Chiov.

(*Cassine aquifolium* Fiori)

Shrub or tree 1-3.6m; bark greybrown, fissured lengthwise. Leaves greygreen, oblong, spinose-lobed, base obtuse or cordate, apex acuminate, 3-9 by 1-3cm, glabrous. Flowers greenish white or-yellow, in few-flowered dichasia 0.5-2cm long; flowers about 4mm long. Fruit white or brown, ellipsoid, 12-18 by 5-10mm.

K17; 50-200m; I-II *

Acacia-Terminalia bushland.

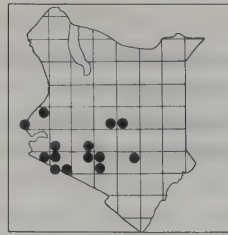
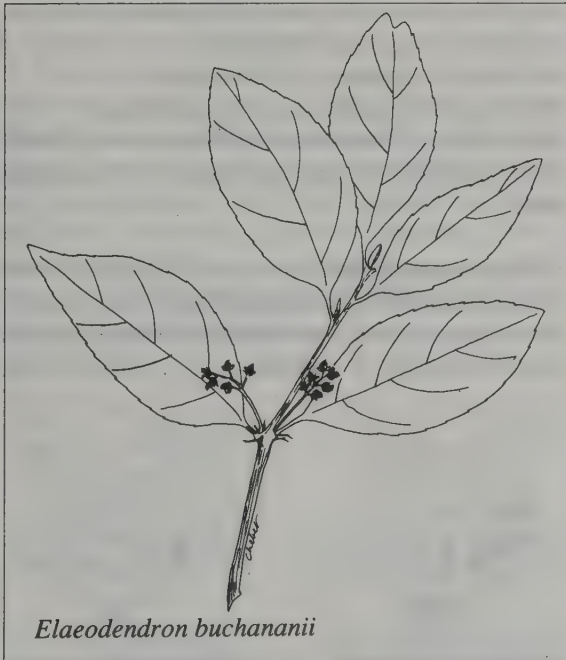
Kibuthi (GIR), Awandide (SAN).

2. *Elaeodendron buchananii* (Loes.) Loes.

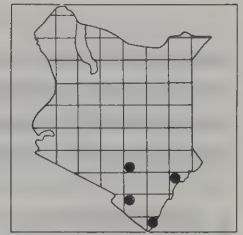
(*Cassine buchananii* Loes.)

Tree 5-26m; bark dark grey, smooth. Leaves elliptic or obovate, base cuneate (rounded), apex acute, obtuse or shortly acuminate, margin glandular-crenate or denticulate, 6-14 by 3-8cm, glabrous. Flowers male or female, cream or yellow-green, in axillary cymes 2-6cm long; flowers to 2mm. Fruit yellow, ellipsoid, 13-20 by 8-15mm.

K3456; 1200-2100m; I-III, VII-VIII, X-XII.



Elaeodendron buchananii



E. schlechteranum

Dry evergreen forest, riverine woodland or wooded grassland.

Mutanga (KIK), Sawanet, Saonet (KIP), Enkanda (KIS), Mulundu (KAM), Kumunyofwe (LUH), Esoget, Olsogot (MAA), Mutimweru (MER), Kalkach (ORM), Sunwa (SEB). Poisonous to livestock and people. Wood fine, hard, fairly durable. Young trees often covered with caterpillars in webs.

3. *Elaeodendron schlechteranum* (Loes.) Loes.

[*Cassine stuhlmannii* (Loes.) Blakelock]

Tree or shrub 2-18m, evergreen. Leaves elliptic or obovate, base cuneate, apex obtuse, acute or emarginate, margin entire or glandular-spiny, 3.5-13 by 2-7.5cm, glabrous. Flowers bisexual (?), white or cream, in axillary cymes to 1cm long; flowers to 3mm. Fruit white, ellipsoid, 12-22mm long.

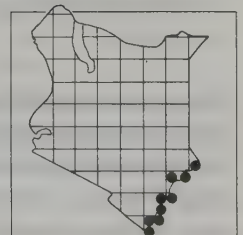
K47; 300-1350m; - *

Deciduous woodland or riverine. Collected 4 times in Kenya; probably is more common, e.g. along the coast (Luke, pers. comm. based on sterile collections).

4. *Elaeodendron schweinfurthianum* (Loes.) Loes.

(*Cassine schweinfurthiana* Loes.)

Shrub or tree, 0.5-10m. Leaves elliptic or slightly obovate, base cuneate, apex obtuse or acute and ending in a small spine, margin entire or rarely spiny-dentate, 2-7 by 0.8-4cm, glabrous, shiny. Flowers yellow-green, in small panicles, bisexual; corolla to 1.5mm long. Fruit white, globose or ellipsoid, 6-8(17?)mm long.



*Elaeodendron
schweinfurthianum*

K7; 1-400m; I, III, V-VII, X-XII.

Bushland or thicket on sand or coral near the sea, also in dry or moist evergreen forest (margin).

Mperemende, Mtambwa-Keregende (SWA), Mkwamba-Kerengende (BAJ). Fruit edible.

3. HIPPOCRATEA

Lianas. Leaves (sub-)opposite; stipules usually deciduous. Inflorescence axillary; flowers bisexual; 5-merous (rarely 4/6); disk present; stamens 3 (rarely 2/4) often with wide filaments. Fruit of 3 mericarps (capsules); mericarps flat.

1. Style present; disk continuous, fruit mericarps 2-many seeded 2
- * Style absent; disk interrupted; fruit mericarps 2-seeded; Shimba Hills 4. *H. pallens*
2. Leaves entirely glabrous 3
- * Leaves (sparsely) pubescent near the base (coast species) 2. *H. crenata*
3. Corolla 3-6mm long; stems lenticellate 4
- * Corolla 1-1.5mm long; stems not lenticellate 5. *H. paniculata*
4. Buds conical 1. *H. africana*
- * Buds cylindrical 3. *H. goetzei*

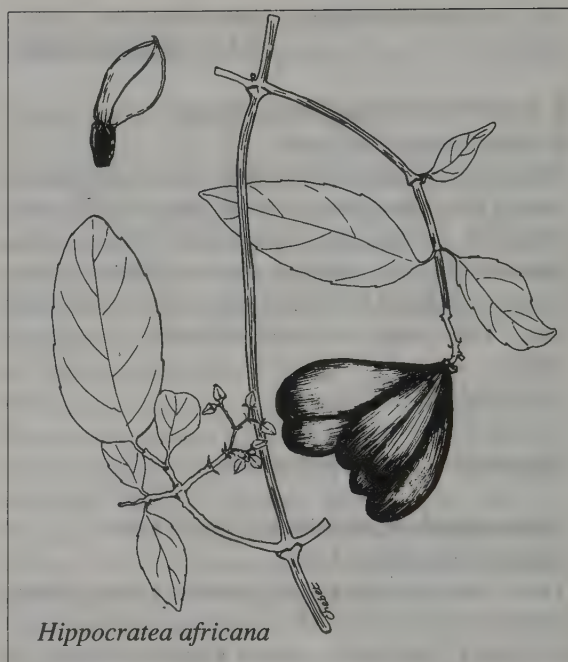
Note: I am unable to assign names to several taxa. I assume there are many more species of *Hippocratea* in Kenya. The following are presumed taxa and specimens:

- 1 Mzima Springs- Gilbert J 19, Gillett & Brenan 2170, ? Timberlake 1116, Beentje 3746
- 2 Mathews Mts.- Cameron 146 (aff. *pallens*)
- 3 Kakamega - Hansen 903, 935, Friis & Hansen 1601, Snodderley K2
- 4 Mau - Kerfoot 4852 (=Kakamega species ?)
- 5 Kakamega - Gilbert 6894 (dark-veined petals)
- 6 Coast - Faden 70/250, Friis 187, Faden 71/684, ? Kuchar 13464, Faden 71/750 (Mrima, Kambe, Arabuko-Sokoke, Gongoni, ? Boni)
- 7 Coast - Faden 74/1148
- 8 Coast - Robertson & Luke 5758, Luke 1596, with petals with dark venation, but not similar to 5.

1. *Hippocratea africana* (Willd.) Loes.

[*Loeseneriella africana* (Willd.) Hallé]

Liana or climbing shrub, 2-15m (lianas may be much longer but reach 15m high); bark rough, yellowish grey. Leaves sometimes shiny, (ob)ovate or elliptic,



base cuneate or rounded, apex rounded, obtuse or obtusely acuminate, margin entire or glandular-denticulate, 4-11 by 2-6.5cm, glabrous. Flowers yellow-green, in dichasia to 6cm long (sometimes appearing to be up to 14cm when leaves fall); corolla 3-6mm long. Fruit (brownish) green, of 3 mericarps, each 3.5-5.5 by 2.3-3.5cm. Seeds winged.

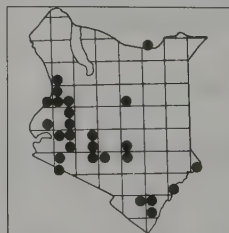
K1234567; 1-2250m; I-V, VII, X-XII.

Riverine, also in forest or (rocky) woodland.

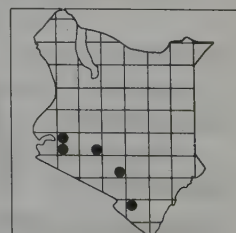
Mow (ILW), Toropchiot (OKI), Gale (ORM), Lmaiyyenen (SAM). Bark and stems used for making rope.

2. *Hippocratea crenata* (Klotzsch) K. Schum. & Loes.

Scrambling shrub 2-4m; bark pale grey. Leaves shiny, elliptic, base cuneate, apex obtuse or rounded, margin glandular-dentate or subentire, 1.5-5.5 by 1-3.3cm,



Hippocratea africana



Hippocratea goetzei

pubescent near the base only. Flowers yellow-green, in dichasia to 1cm long; corolla 2.5-4mm long. Fruit (brownish-) green, mericarps 3.5-4.5 by 2.3-3cm. Seeds winged.

K7; 1-500 m; XI *

Quite common on the coast (not mapped).

3. *Hippocratea goetzei* Loes.

[*Simirestis goetzei* (Loes.) N. Hallé]

Liana at least to 20m long, or scrambling shrub. Young stems 4-angled. Leaves elliptic or ovate, base cuneate, apex obtuse or obtusely acuminate, margin (obscurely) glandular-crenulate, 5-12 by 2.5-5cm, glabrous. Flowers greenish, in dichasia 2-7cm long; corolla 4.5-6mm long. Mericarps (1 known) 4.3 by 2cm.

K457; 1450-2350m; I-III, VIII, XII *

Moist evergreen forest or riverine forest.

4. *Hippocratea pallens* Oliv.

Liana to at least 9m. Leaves elliptic, base cuneate, apex acuminate, margin entire, 5-10 by 3-4.5cm, glabrous. Flowers cream (to greenish or orange) in dichasia 2-4cm long; petals 1-1.5mm long. Mericarps about 3 by 1cm.

K7; 50-400m; II, V *

Forest margins: Shimba Hills, Rabai, Pangani.

5. *Hippocratea* cf. *paniculata* Vahl.

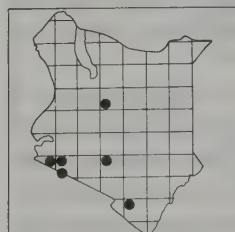
(*H. indica* sensu Agnew)

Scrambling shrub or liana, 2-12m. Leaves ovate or elliptic, base cuneate or rounded, apex acuminate or rounded, margin entire or glandular-denticulate, 5-16 by 3-9cm, glabrous. Flowers yellow-green or cream, in dichasia 3-8cm long; corolla to 1.5mm long. Mericarps 6.5-8 by 3-3.5cm.

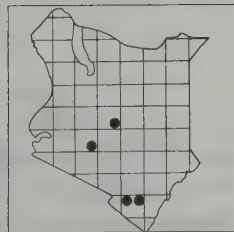
K146; (850) 1450-1900m; III-IV, VI-X

Riverine forest or -woodland.

Used for rope.



Hippocratea cf. *paniculata*



Maytenus acuminata

4. MAYTENUS

Leaves alternate, or fasciculate on short shoots; stipules caducous or absent. Spines often present, axillary or terminating short axillary branches. Inflorescence axillary or in clusters on short shoots. Flowers bisexual or unisexual, with articulated pedicels. Flowers usually 5-merous. Fruit capsular, 1-6 seeded.

1. Leaves puberulous-pubescent; often flowers when leafless

* Leaves glabrous (or puberulous near base); never flowering when leafless

2. Plants without spines, flowers red; broken leaf shows latex threads (also when dry!)

* Plants often spiny; flowers white or yellow; no latex in leaves

3. Plants without spines; flowers sessile

* Plants often spiny; flowers stalked

* Young branches puberulous or pubescent

5. Styles 2-3; aril thin, covering entire seed

* Styles 3-4; aril thick, only near base

* Leaf apex shortly acuminate

* Leaf apex obtuse or acute

* Plant monoecious; stamens longer than petals; seed aril yellow or white

* Plant dioecious; stamens shorter than petals; seed aril purple

8. Styles 3-4; seed aril thick, only near base

* Styles 2-3; seed aril thin, covering more than one-third of seed

9. Leaves usually blueish-green; fruit red or pink, aril rose-pink

* Leaves green; fruit (reddish) yellow; aril yellow

* Leaves green; fruit red or pink; aril yellow, completely covering the seed

1. *Maytenus acuminata* (L.f.) Loes.

Shrub or slender tree, 1-9m; bark black. Latex threads appear when parts are broken off. Leaves ovate, base rounded or acuminate, apex acute or acuminate, margin glandular-denticulate, 5-10 by 2-5cm, glabrous. Flowers pink or red, solitary or in few-flowered cymes;

9. *M. putterlickioides*

1. *M. acuminata*

11. *M. undata*

7. *M. mossambicensis*

6. *M. keniensis*

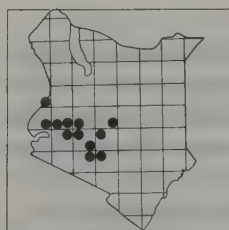
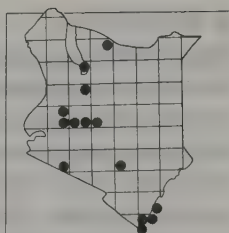
2. *M. arbutifolia*

8. *M. obscura*

10. *M. senegalensis*

5. *M. heterophylla*

4. *M. drummondii*

*Maytenus arbutifolia**Maytenus buchananii*

corolla to 2.5mm long. Fruit yellow or red, 2-3-lobed, 4-11mm long.

K47; 1600-2350m; I, VI, IX-X *

Moist forest (*Ocotea* type).

Rurigi (KIK). The roots are used for a tonic soup by the Kikuyu.

2. *Maytenus arbutifolia* (A.Rich.) Wilczek

[*M. englerana* (Loes) Cuf., *M. ovatus* sensu KTS, p.p.]

Shrub or small tree 1.5-6m, usually with spines to 6cm long. Leaves elliptic, base cuneate, apex acute or obtuse, margin serrulate, 2-8 by 1-4.5cm, glabrous or puberulous at base of midrib beneath. Flowers white or cream, solitary or in few-flowered cymes, dioecious; corolla 1.5-2.5mm long. Fruit yellow or reddish, obconic, 3-lobed, 4-8mm long.

K345; 1600-2350m; III, V-VI, VIII, X, XII *

Riverine or in swampy sites; less often in forest margins or in bushed grassland.

Muburu (KIK), Mwanget (NAN).

3. *Maytenus buchananii* (Loes.) Wilczek

Shrub or small tree 2-6m, sometimes (especially on the coast) scrambling and then to 12m long; spines usually present, to 3cm long. Leaves elliptic or (broadly) ovate, base cuneate, apex obtuse or rounded, margins serrulate, 4-13 by 2-8cm, glabrous. Flowers cream, in 5-25-flowered cymes; corolla 1.5-2.5mm long. Fruit pink or red, obconic, 3-lobed, 4-10mm long.

K123467; 1-2650m; III-IV, VII, XI-XII *

Forest or forest margins (dry or moist), thickets; common in Shimba Hills.

Mudziyadziya (DIG), Sagumai (SAM). Used for live fences.

4. *Maytenus drummondii* Robson & Sebsebe

Shrub, tree or liana; spines to 4 cm long. Leaves elliptic or (ob-)ovate, base obtuse (rounded), apex obtuse or rounded, 2-7 by 1-4.5cm, margin entire or

crenulate, glabrous. Flowers white or cream, in cymes to 3cm long; petals 1.5-2.5mm long. Fruit red or pink, pyriform or obconic, 4-7 mm long.

K4; about 1750m; -*

Collected once on Kilima Kiu.

5. *Maytenus heterophylla* (Eckl. & Zeyh.) Robson

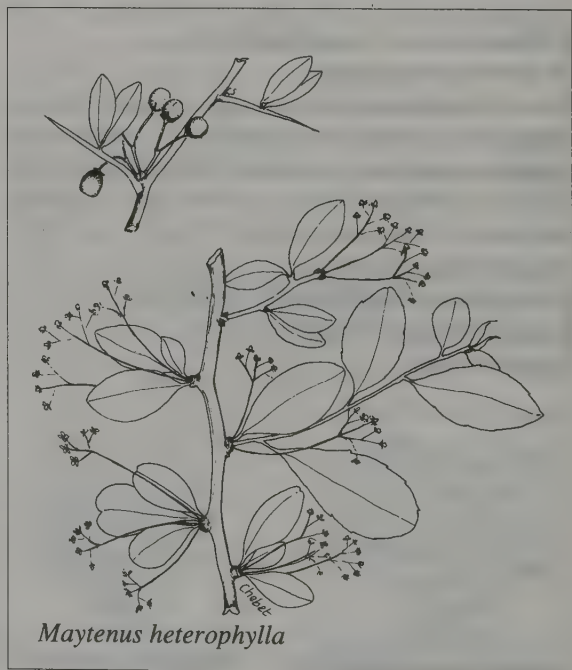
(*M. senegalensis* sensu KTS, p.p.)

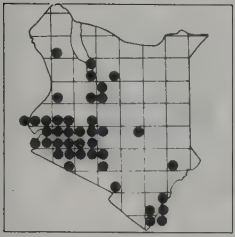
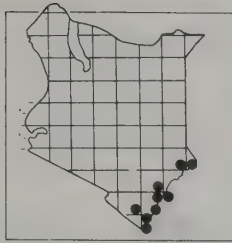
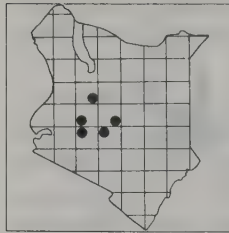
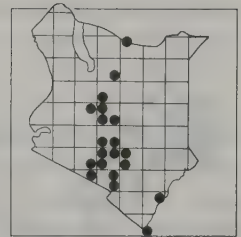
Shrub or small tree 1.5-6m; spines present, 1-6cm long (sometimes more). Leaves often, but not always, fasciculate on short shoots; obovate or spatulate (on fasciculate shoots) to ovate or elliptic (on long shoots), base cuneate, apex obtuse, rounded or apiculate, margin serrulate, 1-9(12) by 0.4-4(7)cm (small in fasciculate shoots), glabrous. Flowers white, cream, or yellow, 2-24 in dichasial cymes to 6cm long; corolla 1-3.5mm long. Fruit yellow or red, obovoid and sometimes 3-lobed, 4-10mm long.

K1234567; 1-350 (coast) and 1150-2700m (inland), I, IV-XII.

Dry (less often moist) upland and lowland forest, riverine in forest or woodland, thickets, (clump) bushed grassland.

Mdunga Mdeewe (SWA), Mokalakala (ILW), Muthuthi (KIK), Kigorwet (KIP, NDO), Kumway-akhafu (LUH), Olaimorongai (MAA), Teerkolwa



*Maytenus heterophylla**Maytenus mossambicensis**Maytenus obscura**Maytenus putterlickioides*

(MAR), Koboch (ORM), Sagumai (SAM), Mandaruk (SOM), Ekalamoran (TUR). Roots are boiled as a vegetable by the Maasai.

6. *Maytenus keniensis* Robson ined.

(*M. ovatus* sensu KTS, p.p.)

(Straggling) shrub to 4m; spines present, to 1.5(6)cm long. Leaves elliptic, base cuneate, apex shortly acuminate, margin serrate, 4-12 by 1.8-4.5cm, glabrous. Flowers greenish-cream, in cymes to 3cm long, dioecious; corolla 1.5-2mm long. Fruit reddish, obovoid, 3-angled, 10-14mm long.

K34; 1350-2250m; - *

Collected twice in SW Mt. Kenya forests, once in the Cherangani, and once in the Nyambeni.

7. *Maytenus mossambicensis* (Klotzsch) Blakelock var. *ambonensis* (Loes.) Robson

(var. *ruber* sensu KTS)

Shrub or slender tree 1-6m; spines present, 1-4cm long. Leaves often fasciculate, elliptic or (ob-) ovate, base cuneate (rounded), apex obtuse or rounded (acuminate), margin serrulate, 1-3.5 by 0.6-2cm, glabrous. Flowers white, cream or yellow, in dichasia 1-2cm long; corolla 1.5-2.5mm long. Fruit red, obovoid, sometimes 3-angled, 7-13mm long.

K17; 1-450m (coast) and 600-1400m (Kasigau); III-IX, XI-XII.

Moist or dry forest, *Brachystegia* woodland, and evergreen coastal bushland near sea.

Mnyao-Nyao (SWA), Gamsodu (BON), Mdziyadziya (DIG), Ndugatundu (GIR).

8. *Maytenus obscura* (A.Rich.) Cuf.

(*M. ovatus* sensu KTS, p.p.)

Shrub or bushy tree 2.5-9m; spines absent or present, to 6cm long. Leaves elliptic, base cuneate, apex obtuse or rounded, margins serrulate, 3-7.5 by 1-4cm, glabrous. Flowers greenish cream, in dichasia 1-4cm long, dio-

ecious; corolla 1.5-2.5mm long. Fruit reddish, obovoid, 3-lobed, 5-8mm long.

K1345; 1900-2550m; III-IV, VIII, XII *

Riverine forest, drier forest margins, evergreen bushland.

Muthunthi (KAM), Muthuthi, Mutanda (KIK), Kwanget, Chepkwatet (SEB), Abukwa (TUG).

9. *Maytenus putterlickioides* (Loes.) Exell & Mendonça

Shrub or small tree 1-6m, occasionally flowering when leafless; bark light grey; spines present on small side branches, to 7cm. Leaves often in fascicles, elliptic or obovate, base cuneate, apex obtuse or rounded, margins subentire to glandular-denticulate, 2-7 by 1-3.5cm, puberulous to pubescent. Flowers white with a red disk, in (often grouped) cymes to 4cm; petals 4-5mm long. Fruit pink to red, subglobose or obovoid and 3-angled, 4-7mm long.

K13467; 1-450m (coast) and 850-1750m (inland); II, VII-XI (VIII).

(Evergreen) bushland, wooded grassland, often in rocky sites.

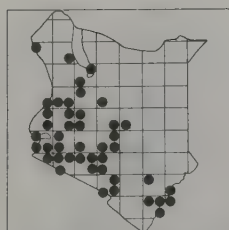
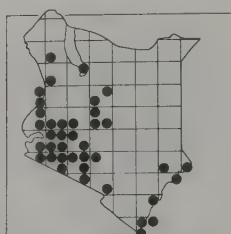
Falkolcha, Fonkoncha (BOR), Muthunthi (KAM), Ilikanyatcha (SAN).

10. *Maytenus senegalensis* (Lam.) Exell

Shrub or tree 1-9m; bark greybrown, fissured; spines often present, to 5cm long, axillary or on short side branches. Leaves blueish-green, sometimes fasciculate, elliptic or (broadly) ovate or obovate, base cuneate, apex rounded, obtuse or apiculate, margins serrulate or subentire, 2-12 by 0.4-6.5cm, glabrous. Flowers (greenish) white or cream, in cymes 1-4cm long; petals 1-3.5mm long. Fruit yellow or red, globose or obovoid, 2-6mm long.

K1234567; 1-2100m; I-XII

Wooded or bushed grassland, riverine in semi-arid areas; less often in rocky bushland.

*Maytenus senegalensis**Maytenus undata*

Mdunga-Ndewe, Mnyonyao (SWA), Mtsokolangongo (DIG), Mvenyuke (EMB), Ndungu-Tundu (GIR), Baagasa (ILW), Kivunda-Ngiti (KAM), Muenyuke (KIK), Kaguruet (KIP), Mathari, Nyandema (LUO), Ol-Lalmoronaili (MAA), Shibe, Ngarawi (NAN), Koboch (ORM), Akwichanian (PKT), Laimurunyai (SAM), Chemetio (SEB), Mandaruk (SOM), Aburuwa (TUG), Ekaburu (TUR). Wood fine and hard, used for small implements and axe handles; may be poisonous.

11. *Maytenus undata* (Thunb.) Blakelock

(*M. undatus* sensu KTS)

Shrub or tree 1.5-12(18)m, evergreen; bark grey, smooth or corrugated; spines absent. Leaves often shiny above, (broadly) elliptic or slightly (ob)ovate, base cuneate, apex rounded, obtuse or acute, margins (spinulose) dentate or denticulate, 2-12(17) by 1-7.5cm, glabrous. Flowers (greenish) cream or white or pale yellow, in axillary fascicles; petals 1.5-3mm long. Fruit yellow to red, obovoid, sometimes 3-angled, 4-7mm long.

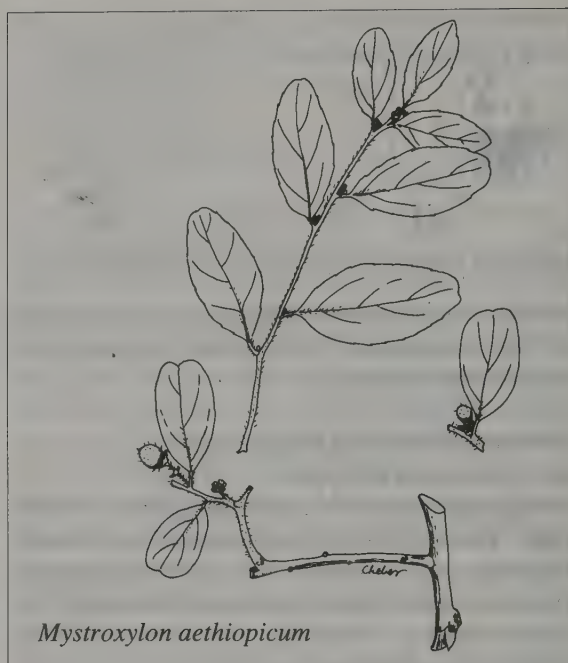
K1234567; 1-450m (coast) and (1050)1500-3200m (inland); I-XII (V-VII, XII-I)

Dry or less often moist upland and lowland forest, often associated with Cedar and Olive; also in forest remnants such as evergreen bushland or clump wooded grassland; on the coast also in closed evergreen bushland near the sea.

Cheptoya (ELG), Muriakitu (GIR), Muthuthi (KIK), Kapluguet (KIP), Olgerosha (MAA), Cheptuyetumo, Eburua (NDO), Kerepurwa (PKT), Itui (SAM), Kwonget, Chemoiwa (SEB), Katuya, Chepkendu (TUG), Emuthi (TUR). Timber red, hard and heavy, used for carpentry and building. Bark decoction used as tonic.

5. MYSTROXYLON

Leaves alternate; stipules small, caducous. Inflores-

*Mystroxylon aethiopicum*

cence axillary, cymose, often dichasial. Flowers 5-merous. Fruit a rather fleshy drupe, 1-seeded.

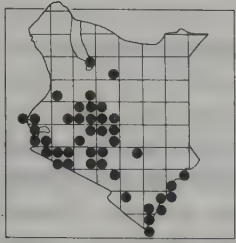
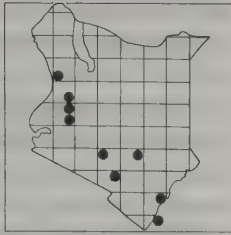
Mystroxylon aethiopicum (Thunb.) Loes.

(*Cassine aethiopica* Thunb.)

Shrub or tree 1.5-12m, evergreen. Bark greyish, smooth. Leaves dark and glossy above, much paler below, ovate or elliptic, base cuneate to subcordate, apex obtuse or rounded, margin crenulate or entire, 1.6-7 by 1-5cm, glabrous or shortly pubescent. Flowers yellow-green, in cymes to 2cm long; petals 1-2.5mm long. Fruit orange to red, globose or ovoid, 8-20mm long.

K1234567; 1-450m (coast) and 900-2400m (inland); I-XII (II, VIII, XI)

Dry forests; semi-evergreen bushland or thickets, riverine; less often in dry woodland or bushed grassland. Mlimbo-Limbo (SWA, GIR), Kukadshi (BON), Chiwalakanga (DIG), Mukongau (KAM), Mukawa (KIK), Keburwet (KIP), Sangela (KIS), Muhundui (LUH), Ochol, Ondiek (LUO), Olodonganayui (MAA), Londongoniyo (NDO), Kapkololuet, Kapkoliawuet (TUG), Kigori (TAI), Ethelei (TUR). Fruit edible; bark used for tea by the Maasai. The bark exudate yields a brown dye. An extremely variable species.

*Mystroxydon aethiopicum**Pleurostylia africana***6. PLEUROSTYLIA**

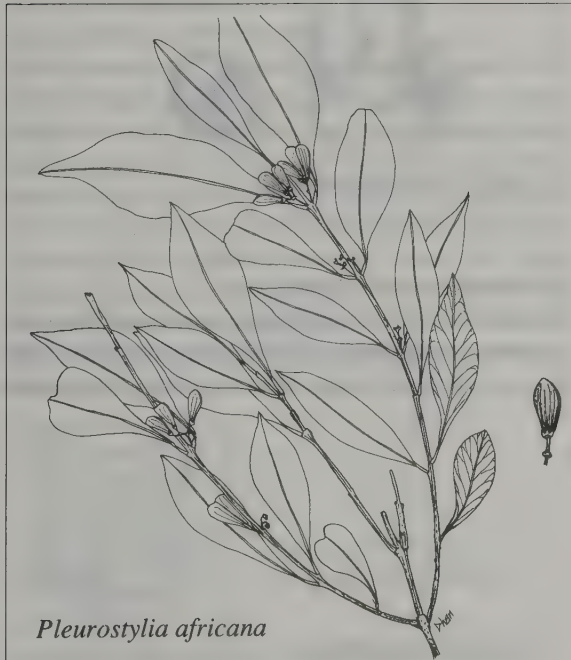
Leaves opposite; stipules very small. Inflorescence axillary, usually dichasial; flowers (4)5-merous. Fruit a dry drupe, 1(2)-seeded.

***Pleurostylia africana* Loes.**

Tree 6-8m (inland) or 9-25m (coastal); bark grey, finely reticulate, when peeled off showing an orange fungus. Leaves shiny above, (narrowly) elliptic, base attenuate, apex acute or acuminate, margin faintly undulate, 3-11 by 1-5cm, glabrous. Flowers greenish, in clusters to 1cm; petals 1-1.5mm long. Fruit green, ellipsoid or obovoid, 7-8mm long.

K2347; 1-400m (coast) and 900-1800m (inland); I-II, IV *

Inland in rocky wooded grassland; on the coast in evergreen forest, where it may be common.

*Pleurostylia africana*

Mnamai, Mti-Mai (SWA), Susa Gusa (BON), Mtangai (GIR), Abele (PKT).

7. SALACIA

Leaves opposite (or alternate on climbing shoots) stipules absent or caducous. Inflorescence axillary or extra-axillary. Flowers bisexual or unisexual; sepals and petals (4)5(6); stamens (2)3(4), often with broad filaments. Fruit a drupe, (2)3-locular but becoming 1-locular, 1-many seeded.

1. Latex threads visible in broken leaf (fresh or dry) 2

- * No latex threads in broken leaf 4

2. Petals 1-2mm long; fruit 10-25mm long; stems with longitudinal ridges, not lenticellate

2. *S. elegans*

- * Petals 2.5-4mm long; fruit 18-30mm long 3

3. Flower buds longer than broad; leaf margins toothed; stems strongly lenticellate

6. *S. madagascariensis*

- * Flower buds globose; leaf margin entire or almost so

7. *S. stuhlmanniana*

4. Petiole with very wavy margins 3. *S. erecta*

- * Petiole with straight margins 5

5. Western Kenya 1. *S. cerasifera*

- * Coastal 6

6. Shrub or tree; flowers in stalked inflorescences; fruit to 7 x 3 cm 4. *S. lehmbachii*

- * Climber or liana; flowers in fascicles, without a common stalk; fruit to 2cm 5. *S. leptoclada*

Note: Kabuye 82/85 from Taita Hills (1760m alt.) is a scandent shrub; I am unable to name it.

1. *Salacia cerasifera* Oliv. (name uncertain)

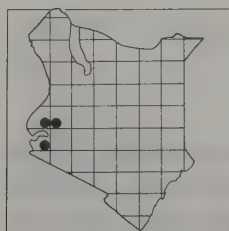
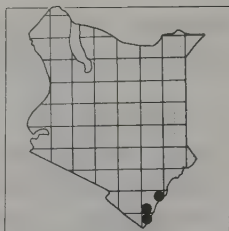
Liana to at least 5m. Leaves shiny, elliptic, base cuneate, apex obtuse or obtusely acuminate, margins serrate, 4-13 by 2-5cm, glabrous. Flowers yellow, in fascicles; petals 2.5-3mm long. Fruit globose, 8-16mm across.

K35; ? 1300-1900m; X * Map on next page
Riverine forest or -thicket.

Obolangiso (LUO), Shikoia (NAN).

2. *Salacia elegans* Oliv.

(Scandent) shrub, size unknown. Leaves shiny, ovate or elliptic, base cuneate to almost rounded, apex acuminate, margin serrate or crenulate, 2.5-6(10) by 1.5-2(5)cm, glabrous. Flowers (greenish) yellow, in fas-

*Salacia ? cerasifera**Salacia elegans*

cicles or semi-umbels to 1cm long; petals 1-2mm long. Fruit orange to red, globose, 10-25mm across.

K7; 1-500m; — *

Forest or thicket.

Mguku (SWA), Mukipo (GIR). Fruit edible.

3. *Salacia erecta* (G. Don) Walp.

(Scandent) shrub 2-4(10)m. Leaves shiny, elliptic, base cuneate or rounded, apex acuminate, margin serrulate, 4-11 by 2-5cm, glabrous; petiole with wavy margins. Flowers greenish cream, in fascicles; petals 2-3mm long. Fruit orange, ovoid or globose, 13-30mm across.

K7; 1-300m; VII, XI *

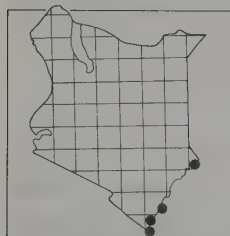
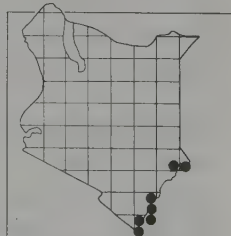
Evergreen forest or woodland.

4. *Salacia lehmbachii* Loes.

Shrub or tree, 1-9m. Leaves (sub) opposite, elliptic, basecuneate, apex with obtuse acumen, margin entire or crenate, 6.5-15 by 2.5-9cm. Flowers orange, axillary, in stalked inflorescences; petals 2-3mm long. Fruit red, to 7 by 3cm, with an acumen of 1.2cm. K7, known from Kaya Jibana and Mrima Hill.

5. *Salacia leptoclada* Tul.

Scandent shrub or liana to 4m. Leaves ovate or elliptic, base cuneate, apex acuminate, margin entire or shallowly serrulate, 5-10 by 2-4cm, glabrous. Flowers yellow-green, in fascicles; petals 2-3mm long. Fruit orange, globose, 12-20mm across.

*Salacia erecta**Salacia madagascariensis*

K7; 50-200m; II, XI *

Evergreen forest; Maluganji, Mangea, Arabuko.

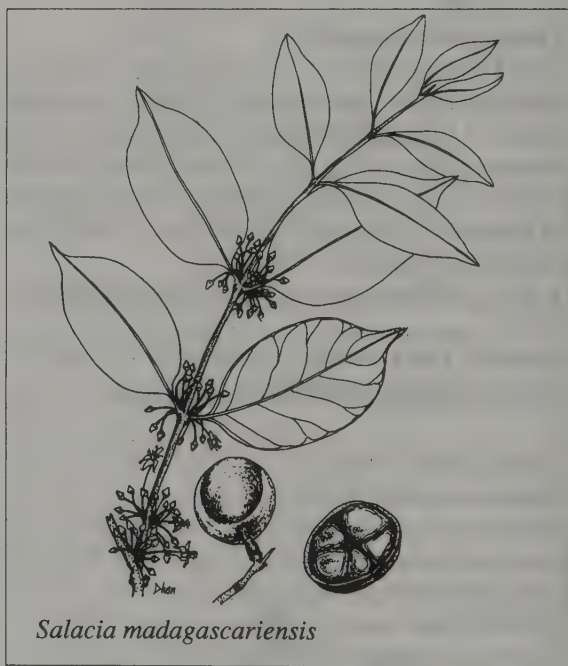
6. *Salacia madagascariensis* (Lam.) DC.

(Scandent) shrub or liana to (at least) 6m, evergreen. Leaves shiny, elliptic, base cuneate, apex acuminate, margin serrulate, 4-13 by 2-6cm, glabrous. Flowers yellow-green or yellow in fascicles; petals 3-4mm long. Fruit pink or orange, globose, 18-30mm across.

K7; 1-500m; III-IV, VI, VIII, XI *

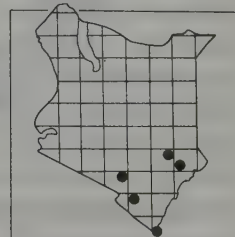
Moist or dry forest, woodland, evergreen bushland.

Mguku (SWA), Mukipo (GIR), Mwitwa-mow (ILW), Gale (ORM). Fruit edible.

*Salacia madagascariensis*

7. *Salacia stuhlmanniana* Loes.

(Scandent) shrub, size unknown. Leaves (sub)opposite (alternate on climbing shoots), shiny, broadly elliptic or -obovate, base cuneate, apex rounded or very shortly

*Salacia stuhlmanniana*

acuminate, margin (sub) entire, 5-11 by 3-6cm, glabrous. Flowers greenish or yellow, in fascicles, petals 2.5-3mm long. Fruit orange, globose, 30-35mm across.

K47; 1-900m; VII *

Riverine or groundwater forest.

179. ICACINACEAE

Trees, shrubs or climbers. Leaves alternate or opposite, exstipulate. Flowers regular, 4-5-merous, petals free or united at base. Fruit a drupe, 1-seeded.

- | | |
|--|-------------------------|
| 1. Leaves opposite | 2. Iodes |
| * Leaves alternate | 2 |
| 2. Shrub or tree; calyx present | 3 |
| * Climbers; calyx absent | 4 |
| 3. Petals free; fruit oblique | 1. Apodytes |
| * Petals united for more than 50%; fruit ovoid | |
| | 3. Leptaulus |
| 4. Leaves lobed | 4. Pyrenacantha |
| * Leaves not lobed | 5. Rhapsiostylis |

1. APODYTES

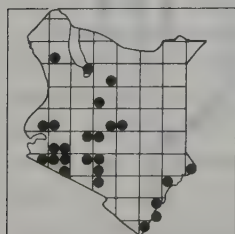
Trees or shrubs. Leaves alternate. Flowers in terminal or less often axillary panicles, 5-merous; petals free. Fruit a drupe with a lateral appendage.

Apodytes dimidiata Arn.

(incl. *Jobalboa aberdarica* Chiov.)

Shrub or tree 3.5-25m, evergreen; the larger trees with fluted trunks; bark smooth, grey. Leaves glossy, elliptic or ovate, base cuneate, apex obtuse or acute, margin slightly recurved, 3-11 by 1.5-6.5cm, glabrous; turning black when dry. Flowers many, in panicles 2-12cm long; branches of inflorescence reddish tinged; flowers white or cream, scented, about 5 by 1mm. Fruit red turning black, asymmetrical, obovate, 5-9 by 3-4mm, glabrous or pubescent.

K1234567; 1-450m (coast) and 1450-2400m (inland); I-VIII, XI-XII.



Apodytes dimidiata



Apodytes dimidiata E. Mey. ex Bernh.

a: flowering branchlet (x 1/2). b: flower (x 5). c: L.S. flower (x 5). d: fruits (x 1).
a-c: from Greenway & Trapnell 5727; d: from Gardner 1040.

Upland dry forest (also in edges or remnants) less often in wet upland forest, also in evergreen clump bushland; on the coast in (clump) woodland or open dry forest. *Apodytes* may be locally dominant in dry forest.

Pear-Wood, White pear (STAND), Mlambusi Mbage (SWA), Mfret (BON), Mungowengowe, Mtsunga Mbuzi (DIG), Mugonyoni, Muchogi (KIK), Chesimboliet (KIP), Masaba, Wanda (LUH), Lemo, Luochuoga (LUO), Ol-Diasimbol (MAA), Turukumi (MER), Arakaulu, Eyaonet (SAM), Orisuet (TUG), Epikorok (TUR). Used in housebuilding and for firewood; also for making agricultural tools.

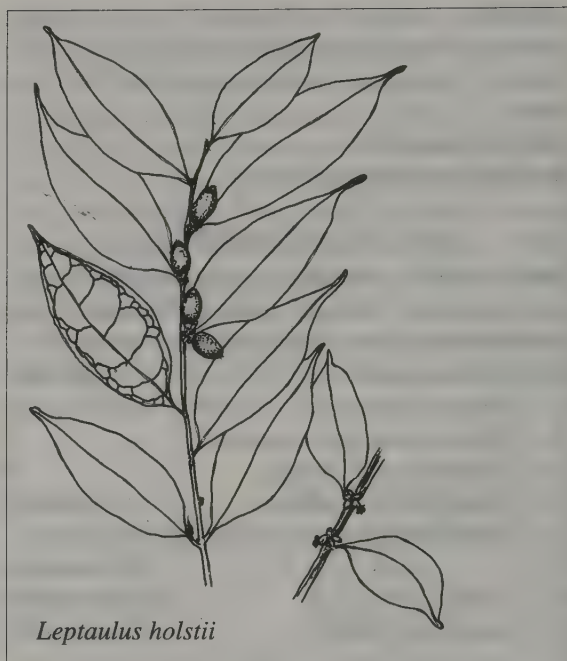
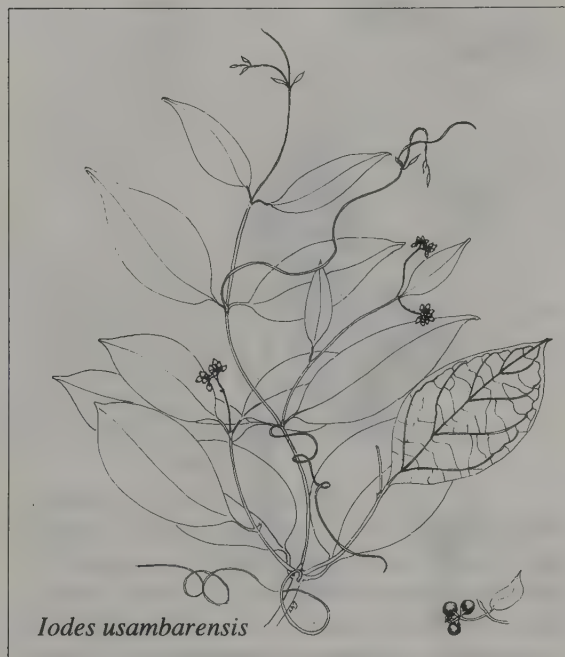
Note: The varieties upheld in FTEA and FZ are, I think, synonymous. The only difference seems to be the pubescence of ovary and fruit, and intermediates occur in Kenya.

2. IODES

Lianes with tendrils from the nodes. Leaves opposite. Flowers in axillary cymose panicles, dioecious. Petals 3-5, united at base. Fruit a drupe with a large seed.

Iodes usambarensis Sleumer

Liane; tendrils at right angles to the leaves. Leaves



glossy above, ovate, base rounded (sometimes asymmetrical), apex subacute or shortly acuminate, 7-11 by 3-7cm, glabrous or sparsely pubescent, with tufts of hair in nerve-axils. Flowers about 1mm long. Fruit subglobose, about 1cm across, glabrous.

K7; 1-50m; X-XI *

Utwani forest, Miongoni, Jego and Ngao.

3. LEPTAULUS

Leptaulus holstii (Engl.) Engl.

Shrub or tree to 5m. Leaves elliptic, base cuneate, apex acuminate, 6-17 by 2-6.5cm, glabrous. Flowers white or yellow-green, in axillary cymes; corolla 1.5-3.5mm long. Fruit red, ovoid, 10-15mm long.

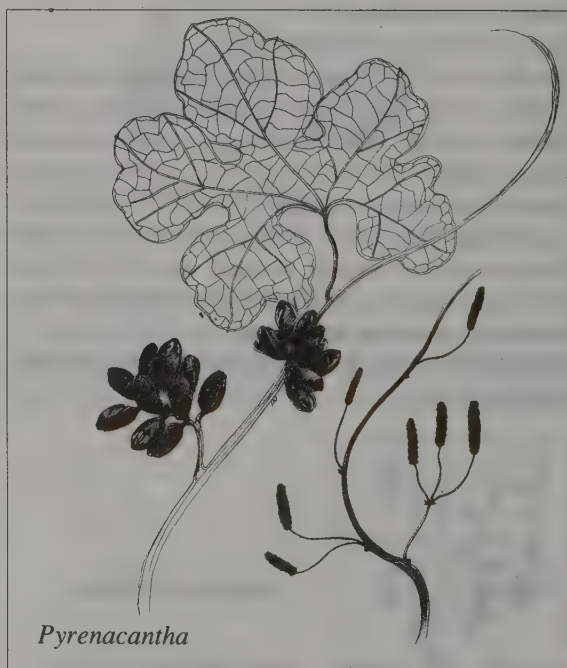
K7; forest at Pangani, Shimba Hills and Mwele.

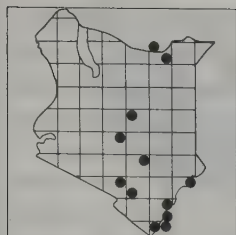
4. PYRENACANTHA

Leaves alternate, entire or lobed, often with hydatodes at ends of nerves. Flowers axillary, in spikes or racemes, most often dioecious; calyx 0; petals (3) 4-5(6), persistent. Fruit a drupe, with fleshy exocarp.

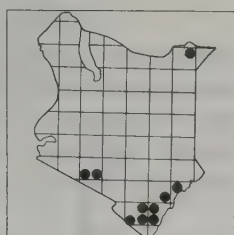
1. Stems from a tuber 2
- * Stems without tuber; young stem sandpappy; leaves not or hardly lobed 3. *P. vogeliana*
2. Stems from subterranean tuber; stems hispid; leaves deeply lobed 1. *P. kaurabassana*

* Stems from exposed tuber; young stems glabrous or pubescent; leaves shallowly lobed 2. *P. malvifolia*





Pyrenacantha kaurabassana



P. malvifolia

1. *Pyrenacantha kaurabassana* Baill.

Climber to 3m, with annual stems from large underground tuber to 30cm across, flowering when leafless. Leaves ovate to pentagonal, most often 3-5(-7) lobed (sometimes subentire), base cordate to sagittate, apex obtuse or mucronate, 4-15 by 5-17cm, hispid. Male flowers green, sessile in a dense spike 2-3cm long, on a 4-12cm long stalk; female flowers sessile, in a subglobular group 1-1.5cm long on a short stalk. Fruit yellow or orange, ellipsoid, 1.5-2 by 1-1.3cm, hispid. K1467; 1-1150m; I-II, VI-VIII, X, XII

Among rocks or on coral in dry bushland; less often under *Brachystegia* or cashew, on the coast.

Tafa Lila (BOR), Ria (GIR). Soaked leaves placed on the ground against jiggers; leaves used against boils and rashes.

2. *Pyrenacantha malvifolia* Engl.

Twinner or climber 2-15m, from exposed whitish tuber looking like a boulder (to 1.5m across), flowering when leafless. Leaves broadly ovate to reniform, shallowly and evenly lobed, base (sub) cordate, apex emarginate, 4-12 by 4-12cm, glabrous, pubescent, or hispid. Male flowers greenish, sessile on 2-6cm long spikes without peduncles; female flowers green, sessile, on short lateral shoots. Fruit yellow or orange, ellipsoid, 1.5-2 by 0.7-1.4cm, hispid.

K167; 1-1500m; II, V-VIII *

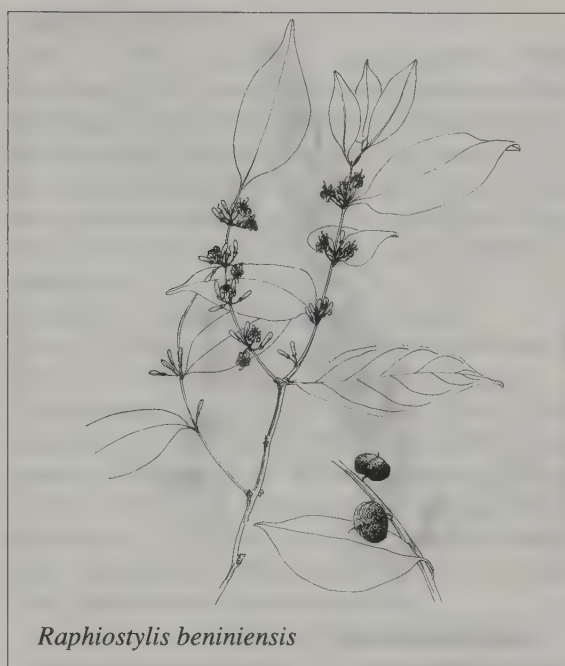
Dry bushland, often on rocky soils or lava; on the coast also in dry forest.

Arapalwa (MAA), Fada Geli (SOM).

3. *Pyrenacantha vogeliana* Baill.

Climber. Leaves elliptic, base truncate or subcordate, apex attenuate, 6-22 by 3-8cm, glabrous or sparsely hairy. Flowers in (supra-) axillary spikes. Fruit orange-red, in clusters at the top of a thick stalk, beaked, 1.5-2 by 1-1.5cm.

K7; 50-500m; Buda forest, Mwachi, Mangea.



Raphiostylis beniniensis

5. RHAPHIOSTYLIS

***Raphiostylis beniniensis* (Planch.) Benth.**

Liana to 15m. Leaves elliptic, base cuneate or rounded, apex acuminate, 5-15 by 2-8cm, glabrous. Flowers white, in axillary fascicles; petals to 7mm long. Fruit black, broadly ovoid with a sharp acumen, wrinkled when dry.

K7, collected once in Shimba Hills forest (Robert Schmidt 1348)

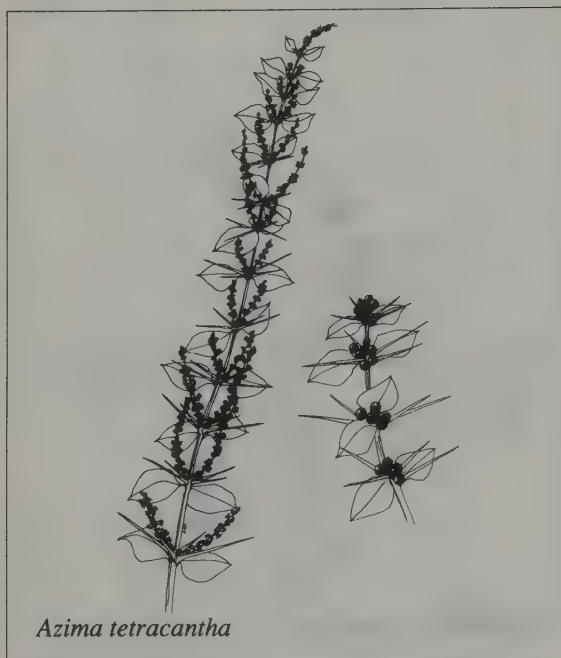
180. SALVADORACEAE

Trees or shrubs. Leaves opposite; stipules minute or absent. Flowers regular in dense axillary or terminal fascicles or panicles. Sepals 2-4, petals 4. Fruit a berry or drupe.

- | | | |
|----|---|----------------------------|
| 1. | Shrubs with spines | 1. <i>Azima</i> |
| * | Shrubs or trees, unarmed | 2 |
| 2. | Petals free; stamen-filaments united in a tube; fruit ellipsoid | 2. <i>Dobera</i> |
| * | Petals united at base; stamens free; fruit globose | 3. <i>Salvadora</i> |

1. AZIMA

Shrubs with paired or solitary axillary spines. Flowers axillary, 4-merous, dioecious; female flowers with

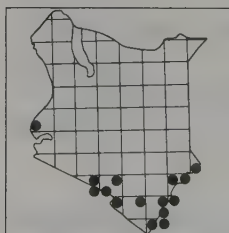


staminodes. Fruit a 1-2-seeded berry.

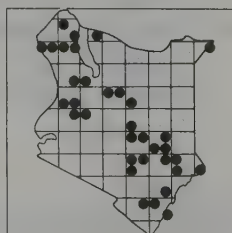
Azima tetracantha Lam.

(Scandent) shrub 0.5-3m, evergreen. Spines to 4cm. Leaves (broadly) elliptic, base cuneate, apex mucronate (mucro sharp), 2-8 by 1-7cm, glabrous. Flowers cream or yellow-green, small, in inflorescences to 5cm long. Fruit translucent white, globose, 6-8mm across. K4567; 1-1300m; I-III, VI, VIII-XI *

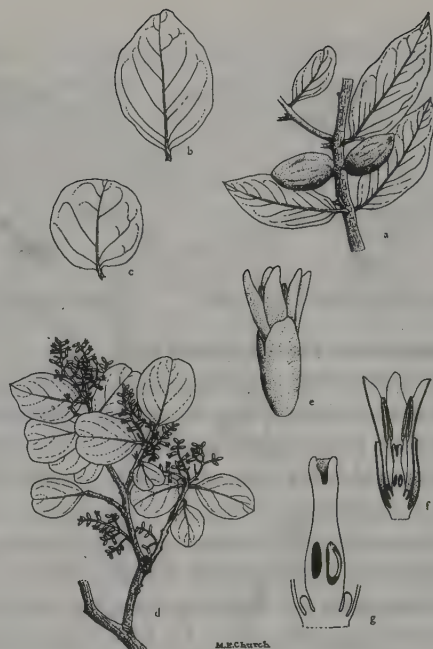
Sea-dunes, mangrove edges, inland often on swamp edges or riverine, especially on saline or alkaline soils. Mdunga-Ndewe, Msuaki-Ndume (SWA), Muchere (GIR), Waigho (ILW). A root decoction is used against stomach disorders by the Bajun.



Azima tetracantha



Dobera glabra



Dobera glabra (Forssk.) R.Br.

a: fruiting branchlet ($\times 4$), b & c: leaves ($\times 4$), d: flowering branchlet ($\times 4$), e: flower ($\times 6$), f: L.S. flower ($\times 6$), g: L.S. gynoecium ($\times 15$). a: from Hemming 252; b & c: from Dale 302; d-g: from Dale 780.

2. DOBERA

Trees or shrubs. Flowers bisexual, in axillary or terminal panicles. Calyx irregularly 3-4-toothed. Fruit a drupe.

1. Petals 4-5mm long; fruit 18-24mm long

1. *D. glabra*

- * Petals 3-3.5mm long; fruit 10-16mm long

2. *D. loranthifolia*

1. *Dobera glabra* (Forssk.) Poir.

Shrub or more often tree, 2-13.5m, evergreen, with rounded crown; bark grey, reticulate. Leaves leathery, elliptic or (ob-) ovate, base cuneate or rounded, apex obtuse, rounded or acute, and mucronate, 2-10 by 1-5.5cm, glabrous, sometimes glandular. Flowers white, 3.5-5mm long, in panicles to 6cm long. Fruit orange, ellipsoid with acute apex, 18-24 by 10-13mm.

K12347; 1-1050m; I-III, V-VI, VIII-XII

(*Acacia-Commiphora*) bushland or woodland, in the northern parts of the country mostly near lugga's. Mkupa (SWA), Hurub (BON), Chersi (BOR), Mkulukulu (GIR), Mokopa (ILW), Kithio (KAM), Gashir (ORM), Korosion (PKT), Garse (SAN), Garas (SOM), Edapal (TUR). Fruit edible.

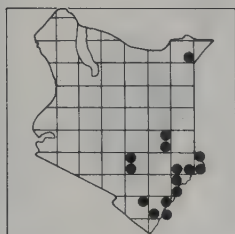
2. *Dobera loranthifolia* (Warb.) Harms.

Tree 3-12m, evergreen; bark grey (-brown), reticulately fissured. Leaves leathery, elliptic or (ob-)ovate, base cuneate or rounded, apex mostly acute, 1.5-9.5 by 1.2-6cm, glabrous; sometimes glandular. Flowers white, 3-3.5mm long, in panicles to 5cm long. Fruit ellipsoid, 10-16 by 7-10mm.

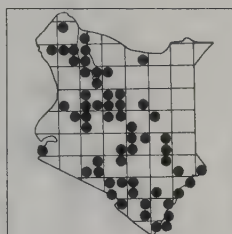
K147; 1-800m; III, VI, VIII-XII.

(*Acacia*) bushland or woodland, often on black cotton or alluvial soils.

Dende (ORM), Garas (SOM). Fruit edible.



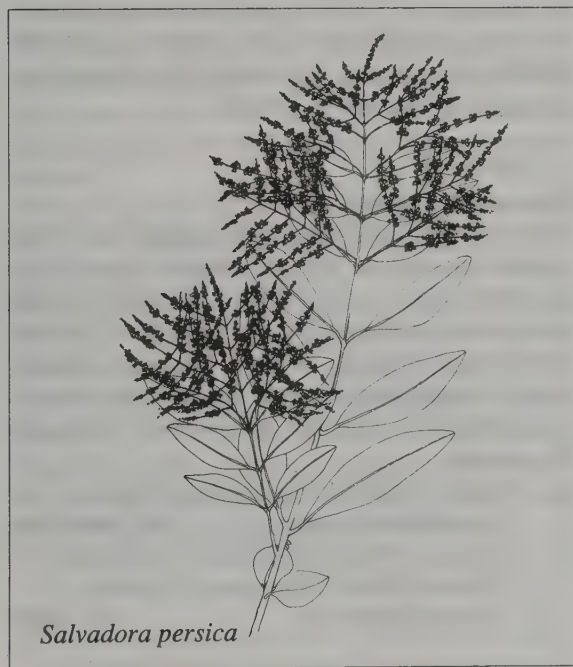
Dobera loranthifolia



Salvadora persica

3. SALVADORA

Shrubs or trees. Flowers bisexual, in axillary or terminal panicles. Calyx 4-toothed. Petals 4, shortly joined at base. Fruit a globose drupe.



Salvadora persica

***Salvadora persica* L.**

Tree or shrub (occasionally semi-scandent) 1-9m, evergreen; bark rough, grey-brown, branches often hanging. Leaves slightly succulent, narrowly elliptic, base cuneate or rounded, apex acute to rounded, 1.5-10 by 1-3cm, glabrous (except in var. *pubescens*). Flowers greenish-cream, tiny, in panicles to 10cm long. Fruit translucent white, reddish or purple, globose, 3-6mm across.

K1234567; 1-1500(-1850)m; I-IV, VI-XII.

Most often along rivers, luggas, lakes or wells; also in dry (*Acacia*) bushland and (wooded) grassland.

Tooth Brush Tree (STAND), Mswaki (SWA), Adi, Huda (BOR), Nyetheh (DAS), Aadde (GAB), Mjungumoto (GIR), Musuaki (ILW), Mukayau (KAM), Eremit (MAA), Ade, Dalkath (ORM), Muade (PKM), Asiokonyon (PKT), Hagay (REN), Sakotei (SAM), Ade, Adhei (SAN, SOM), Esokon (TUR). Fruit edible; branchlets used as toothbrushes.

- var. *pubescens* Brenan has hairy leaves; K6.

- var. *cyclophylla* (Chiov.) Cuf. has broadly elliptic leaves, rounded at apex, 4-10 by 3-6cm; found on coral very close to the sea, mangrove edges, or sand dunes; K7.

Note. Intermediates occur between var. *persica* and respectively var. *pubescens* (e.g. Agnew 7003) and var. *cyclophylla* (e.g. Frazier 995).

182. OLACACEAE

(by Quentin Luke)

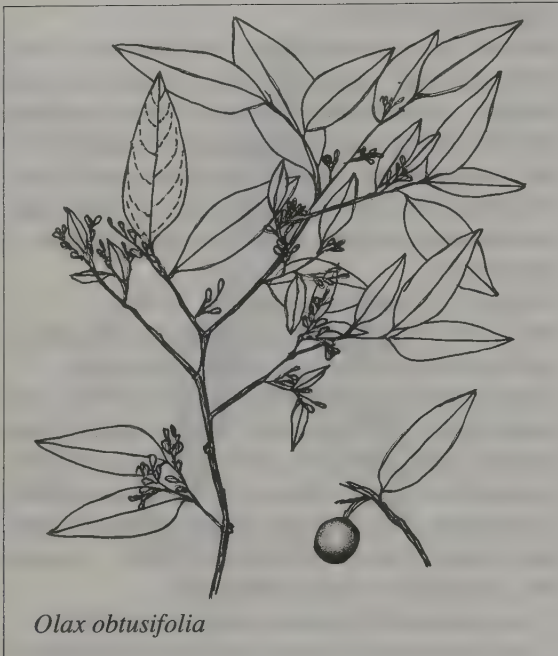
Trees or shrubs, sometimes armed. Leaves alternate, exstipulate. Flowers axillary; petals 3-5, stamens 3-8(10). Fruit a drupe.

1. Large tree over 15m high; petiole more than 1cm long **2. *Strombosia***
- * Shrubs or small trees less than 15m high; petiole less than 1cm long **2**
2. Plants usually armed, petiole more than 5mm long; petals 4-5, hairy within **3. *Ximenia***
- * Plants unarmed, petiole less than 4mm long; petals 3, glabrous **1. *Olax***

1. OLAX

Olax obtusifolia De Wild.

Shrub or tree to 15m, evergreen? Bark smooth, mottled greybrown. Leaves grey-green, ovate, base cuneate, apex acuminate to obtuse, 8-12 by 3-5cm, glabrous. Flowers greenish-white, solitary or in clustered ra-



comes to 2cm long; petals 7-11mm long, reflexed, with 5-6 'Y' shaped staminodes. Fruit orange, globose, to 2.5cm.

K7; 300-450m; I *

Moist forest on Shimba Hills; locally common.

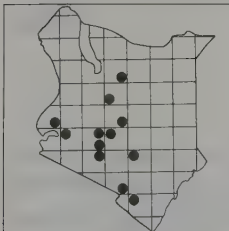
Mdimutsaka (DIG).

Note: the Kenyan material was previously identified as *O. dissitiflora*.

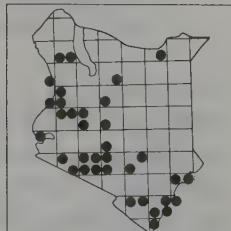
2. STROMBOSIA

Strombosia scheffleri Engl.

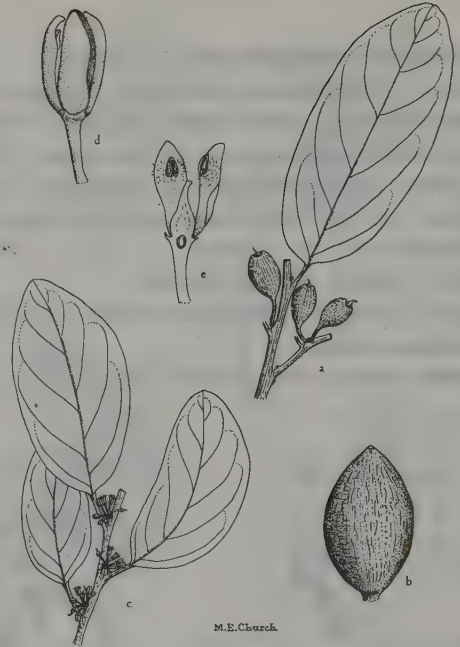
Tree to 30m, evergreen, slightly buttressed, with clean bole; bark smooth, flaking, grey-green with red inner bark. Leaves ovate to obovate, base broadly cuneate to rounded, apex acute to rounded, (6) 9-16 (38) by (3) 4-7 (12) cm, glabrous. Flowers yellow-green in usu-



Strombosia scheffleri



Ximenia americana



Strombosia scheffleri Engl.

a: part of branchlet with young fruits ($\times \frac{1}{2}$); b: fruit ($\times 1$); c: flowering branchlet ($\times \frac{1}{2}$); d: flower ($\times 5$); e: L.S. flower ($\times 5$); a: from Gardner 1330; b: from Bally 1139; c-e: from Battiscombe 1308.

ally axillary clusters; petals 3-5mm long. Fruit black, ellipsoid, 2-3cm long, with a depression at the top from which the style-remains rise.

K1457; 1200-2300m; II-III, VIII-IX, XI *

Moist forest, sometimes dominant.

Strombosia (STAND), *Mutianzunu* (KAM), *Munyenyé*, *Muthiringu* (KIK), *Mutimuiru*, *Murithi* (MER), *Musangana* (TAI). Seed edible. Timber hard, strong but not durable in ground.

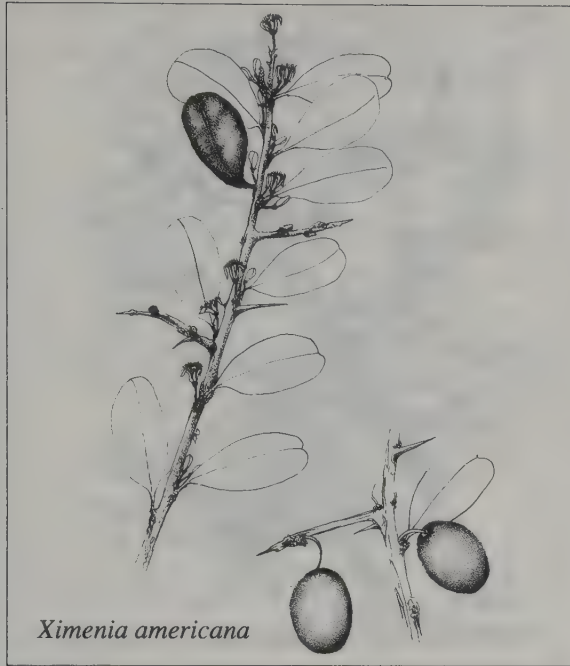
3. XIMENIA

Ximenia americana L.

Tree or shrub to 6m, usually with axillary spines; bark black or grey-brown. Leaves alternate or clustered on spur shoots, elliptic or obovate, base cuneate to rounded, apex obtuse or emarginate, (2.5) 4-7.5 by 2-4.5cm, often folded along the midrib. Flowers (greenish) cream, axillary, on spur shoots or on spines; petals 5-10mm long. Fruit orange-red, ovoid or ellipsoid, to 25mm long.

1. Leaves and branches glabrous; flowers in pedunculate cymes var. *americana*

- * Leaves and branches glabrous to tomentose; flowers solitary or in clusters without a common peduncle var. *caffra*



Ximenia americana

- var. *americana*

K25; 1700-1800m; IV-VI, XII *

On rocky hillslopes in the Kitale area. Records from FTEA for this variety (a species in FTEA) mostly were the next variety.

- var. *caffra* (Sond.) Engl.

K1234567; 1-2000m; I-VI, VII, IX-XII (XI)

Coastal bushland, wooded grassland or dry woodland. Specimens from Embu and Machakos districts are densely tomentose; in other areas the hairiness is more variable.

(for both varieties) Sour plum, tallow nut; Wild Plum (STAND), Mtundakula (SWA, DIG, GIR), Mtchundakula (BAJ), Huda-Hudo (ILW), Kitula, Mutula (KAM), Mutura (KIK), Olemo (LUO), Ol-Amai (MAA), Timyotwa (MAR), Huda-hodo-baddah (ORM), Kinyotwo (PKT), Laama, Lamai (SAM), Munyotwo, Mutenywa (SEB), Myengwo (TUG), Elamai (TUR), Dahbabes, Huda (BOR), Madarau, Madarud (SOM). Timber hard, heavy, yellow-red, fine-grained, scented. Fruit is edible, though sour. Seed with up to 60% oil with multiple uses.

183. OPILIACEAE

(by Quentin Luke)

Leaves alternate, exstipulate. Flowers small, regular, in catkin-like racemes or umbels. Petals 4-5; stamens 4-5, opposite petals. Fruit a fleshy, big-stoned drupe.

1. Flowers in umbels; liana
2. *Pentarthropalopia* *
- * Flowers in racemes, initially cone-like
1. *Opilia*

1. OPILIA

1. Racemes longer than 2cm, appearing with mature leaves; plant usually a liana

1. *O. amentacea*

- * Racemes less than 1cm, appearing before leaves are mature; plant a shrub

2. *O. campestris*

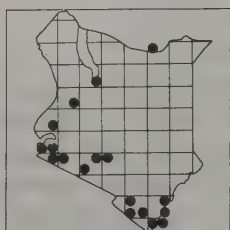
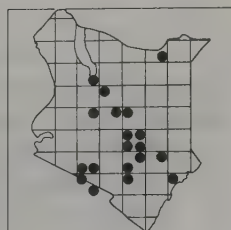
1. *Opilia amentacea* Roxb.

[*O. celtidifolia* (Guill. & Perr.) Walp.]

Liana to 15 (?30)m, occasionally shrubby; evergreen. Bark greybrown, splitting longitudinally, with corky lenticels forming ridges. Leaves elliptic, base cuneate to rounded, apex acuminate, acute or obtuse, 5-10(16) by 1.5-5(6.5)cm, glabrous and shiny or tomentellous, coppery when young. Flowers minute, yellow-green, in racemes to 5.5cm long; early inflorescence cone-like due to sheathing bracts. Fruit ellipsoid, orange,



Opilia amentacea

*Opilia amentacea**Opilia campestris*

yellow or whitish, to 1.5cm across.

K134567; 1-2000m; II-IV, VIII-XII (XI).

Widely distributed from coastal bush through *Acacia* woodland to dry forest, often riparian. Probably a root parasite.

Msigande (SWA, GIR). Fruit edible (just). Roots used against fevers.

2. *Opilia campestris* Engl. var. *campestris*

Shrub to 5m, deciduous; appearing spiny when leafless (because of shortshoots). Bark similar to *O. amentacea*. Leaves elliptic or (ob) ovate, base broadly cuneate, apex broadly acute, obtuse, rounded or occasionally emarginate, 1-5 by 1-4cm, hairy when young but becoming glabrous. Inflorescence like *O. amentacea* but shorter. Fruit white-green to purple, ellipsoid, beaked when young, to 1 (1.5)cm across, tomentose.

K1467; (1)500-1500m; III-IV, X-XII (X) *

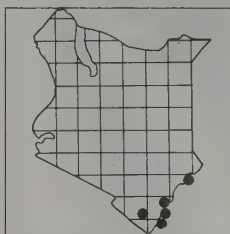
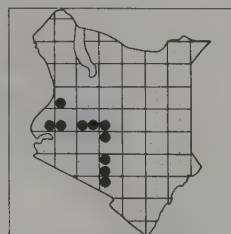
Dry deciduous bushland, wooded grassland, often on anthills.

Goldigoloba/Godgodub (BOR), Afuguba (ILW), Mubrubu (KAM), Engangolol (MAA), Afgub (ORM, SOM). Fruits edible; leaves browsed by camels.

2. PENTARHOPALOPILIA

Pentarhopalopilia umbellulata (Baill.) Hiepko
(*Rhopalopilia umbellulata* Baill.)

Liane or scandent shrub. Bark similar to *Opilia*.

*Pentarhopalopilia umbellulata**Phragmanthera dschallensis*

Leaves elliptic, base broadly cuneate, apex acute, obtuse or rounded, 4-7(10) by 1-3.5(4.5)cm, glabrous. Flowers minute, greenish white, in small stalked umbels with a swollen cushion-like expansion on which the pedicels stand. Fruit golden yellow, subglobose or ellipsoid, about 1cm across.

K7; 1-850m; II-IV, XI-XII *

Coastal bush on coral, *Brachystegia* woodland and dry evergreen forest.

Mbugo-Lwala, Mgunga-lungu (SWA). Fruit possibly edible.

185. LORANTHACEAE

(Hemi-) parasites. The following species is the only epiphytic/parasitic shrub in Kenya over 1.5m large.

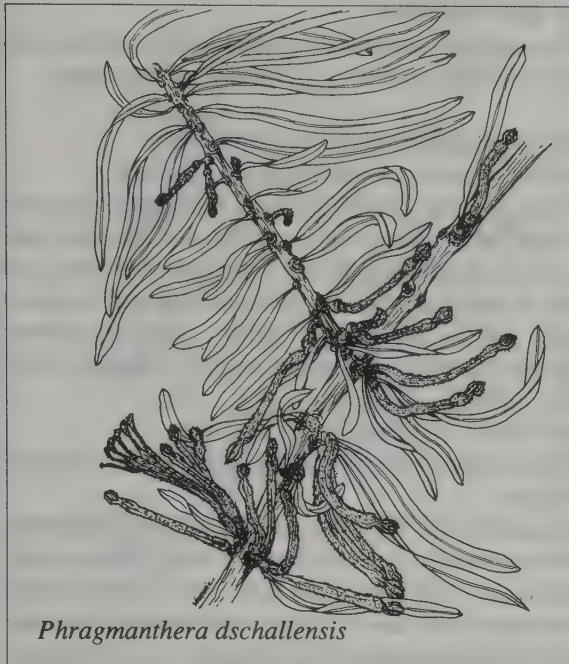
1. PHRAGMANTHERA

Phragmanthera dschallensis (Engl.) Balle

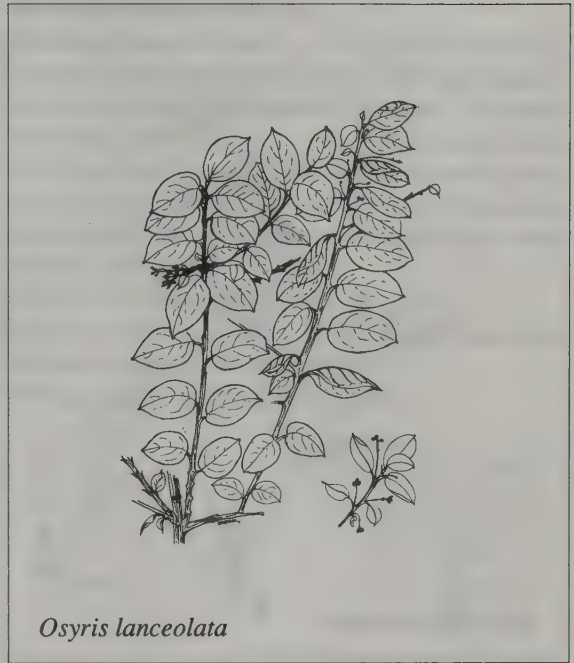
(Hemi-) parasite 0.7-2.5m, hanging. Leaves narrowly elliptic, (sub) opposite, 3.5-17 by 0.4-1.5cm, glabrous, leathery. Flowers orange, in several-flowered axillary clusters; corolla narrowly tubular, about 5.5cm long. Fruit dull orange, ovoid, about 15mm long, crowned by persistent calyx.

K345; 1400-1900m; I-IV, VIII, XI-XII

Woodland or wooded grassland; host tree usually an



Phragmanthera dschallensis



Osyris lanceolata

Acacia, occasionally *Commiphora holtziana*, *Ziziphus* or ?*Dovyalis*.
Shikulakuli (LUH).

against diarrhoea by the Pokot; the root gives a strong red dye; root fibres are used in basketry. The wood is used as a substitute for sandalwood. The fruit is edible.

186. SANTALACEAE

Leaves alternate, without stipules. Dioecious; flowers 3-merous, in few-flowered axillary cymes. Fruit a drupe.

1. OSYRIS

Osyris lanceolata Hochst. & Steudel

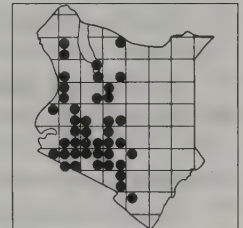
[*O. abyssinica* A.Rich., *O. compressa* (Berg.) A.DC.]
Shrub or tree 1-6m, evergreen; smaller branches drooping. Leaves blueish green or yellow-green, slightly fleshy, narrowly elliptic to broadly ovate, base cuneate, apex spiny-acute, margin somewhat thickened, 1-7 by 0.4-3cm, glabrous. Flowers yellow-green, tiny, in few-flowered axillary cymes. Fruit orange or red, round, 5-8mm.

K123467; 900-2550m; I-VI, VIII-XII

Usually in rocky sites where the original vegetation has been cleared; forest margins, evergreen bushland, grassland, thickets.

EA sandalwood (STAND), Kithawa (KAM), Muthithi (KIK), Kepurwet (KIP), Olosesiyet (MAA), Jemok-abyi (MAR), Kijulu (TAI). The root decoction is taken

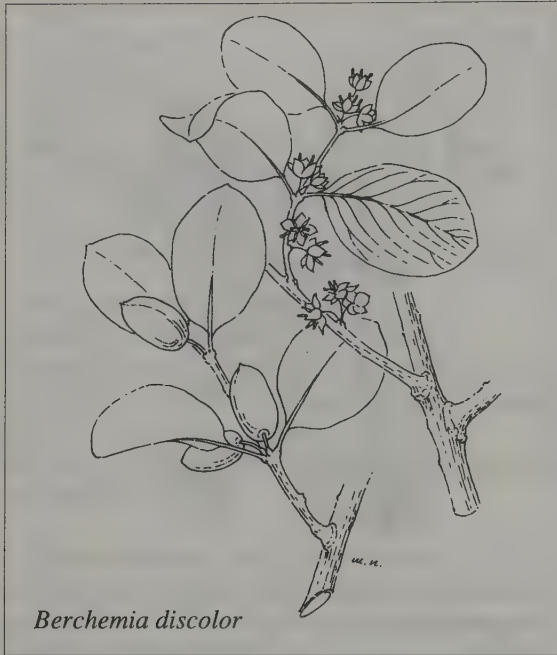
Osyris lanceolata



190. RHAMNACEAE

Trees, shrubs or lianas. Leaves simple, alternate or opposite, often serrate or crenate (with glands at tips of teeth). Stipules mostly present. Flowers small, regular, 4-5-merous; in cymose or thyrsoid inflorescences. Sepals and petals attached to the rim of a cup. Stamens often clasped or hooded by the petals.

- | | | |
|----|---|-------------------|
| 1. | Lianas with axillary tendrils | 2 |
| * | Trees, shrubs or climbers without tendrils | 3 |
| 2. | Leaf margin entire; fruit globose | 4. <i>Helinus</i> |
| * | Leaf margin with minute teeth; fruit 3-winged | |
| | 3. <i>Gouania</i> | |
| 3. | Branches with spines or thorns | 4 |



- * Branches unarmed 6
- 4. Leaves with basal veins reaching leaf apex 10. *Ziziphus*
- * Leaves with basal veins not reaching upper half of leaf 5
- 5. Leaves alternate; thorns straight 7. *Rhamnus staddo*
- * Leaves (sub-)opposite; thorns curved 8. *Scutia*
- 6. Leaf margin entire 1. *Berchemia*
(occ. also in *Rhamnus staddo*)
- * Leaf margin with tiny teeth 7
- 7. Basal veins reaching upper half of leaf 8
- * Basal veins not reaching halfway the leaf 9
- 8. Shrub to 4m; leaf margin teeth not hairy 2. *Colubrina*
- * Shrub or tree to 15m; leaf margin teeth hairy 10. *Ziziphus pubescens*
- 9. Leaves (sub-) opposite 10
- * Leaves alternate 11
- 10. Coastal species; leaf margin with tiny teeth 5. *Lasiodiscus*
- * Western species; leaf margin glandular-toothed 6. *Maesopsis*
- 11. Trees or (scandent) shrubs; fruit subglobose or 3-lobed 7. *Rhamnus*
- * Kakamega forest liana; fruit winged 9. *Ventilago*

1. BERCHEMIA

Leaves (sub-) opposite, entire. Flowers solitary or in few-flowered fascicles. Fruit an elongate drupe.

Berchemia discolor (Klotzsch) Hemsl.

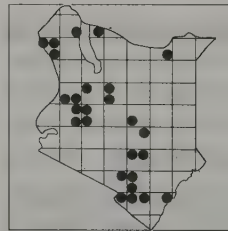
[*Phyllogeiton discolor* (Klotzsch) Herzog]

Tree or shrub 2-10(21)m; bark reticulately fissured, (dark) greybrown. Leaves elliptic or obovate, base cuneate or rounded, apex rounded, blunt or acute, 3-9 by 2-5cm, glabrous or pubescent beneath; occasionally petiole and midrib reddish. Flowers yellow-green, to 3mm. Fruit yellow or pink, 1-seeded, 12-20 by 7-11mm.

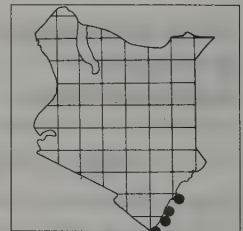
K123467; 1-1600m; III, V, IX-XII *

Dry bushland, rocky hillsides; often riverine or along luggas.

Mujajabho (ILW), Muthuama (MAR), Jajab (ORM), Muchukwa (PKT, TUG), Santaiti (SAM), Deen (SOM), Mzwana (TAI), Emeyen (TUR). Fruit edible; wood resinous, hard, used for tools and small implements; bark infusion against liver ailments by the Turkana.



Berchemia discolor



Colubrina asiatica

2. COLUBRINA

Leaves alternate. Flowers 5-merous, protandrous, axillary in fascicles or thyrses. Fruit 3-parted.

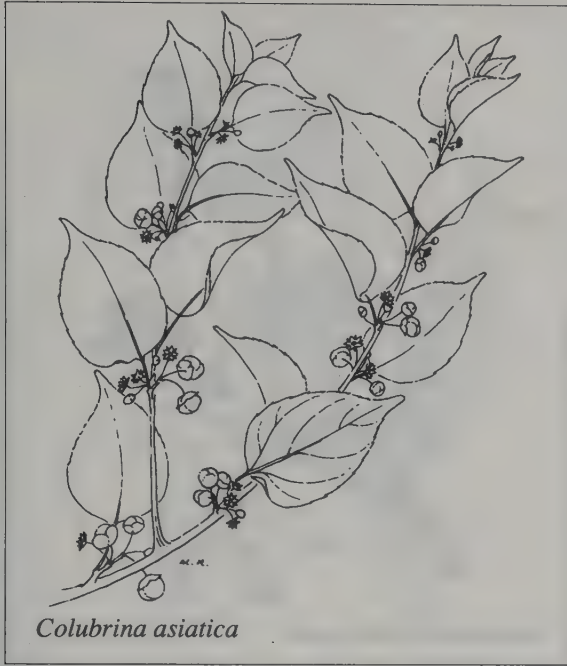
Colubrina asiatica (L.) Brongn.

Climbing or sprawling shrub 1-4m long, evergreen, often with zig-zag branches. Leaves shiny above, base rounded or subcordate, apex acuminate, margin crenulate, 3-10 by 1.5-6cm, glabrous or nearly so; basal two veins reaching into upper half of the leaf. Flowers yellow-green, to 2mm. Fruit yellow, almost globose, 7-8mm across, breaking in 3.

K7; 0-15m; I, IV-V, VII, XI-XII

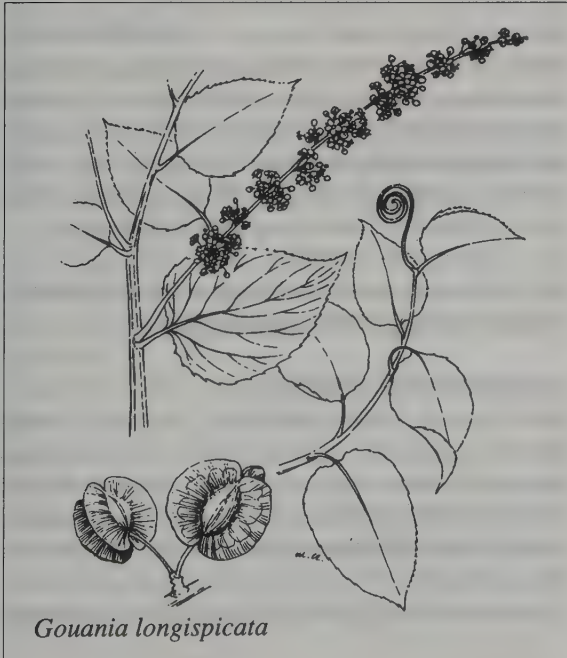
Seashore and coastal scrub close to the sea, S. of Malindi.

Mfuo (SWA).



3. GOUANIA

Lianas with tendrils. Leaves alternate. Flowers 5-merous, in small thyrses arranged on terminal panicles. Fruit a dry capsule with 3 wings.



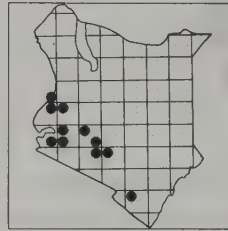
Gouania longispicata Engl.

Sprawling shrub or liana 1-12m. Tendrils axillary. Leaves ovate, base rounded or subcordate, apex acuminate or acute, margin serrulate, 4-10 by 2.5-5.5cm; underside of leaf pale green with reddish veins; basal veins reaching into upper half of leaf. Flowers greenish or yellowish white, 1-2mm, on a spike-like inflorescence to 20cm. Fruit 6-8mm long, 8-11mm across including the wings.

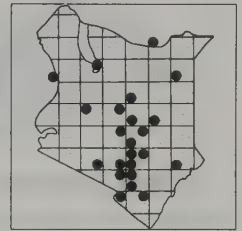
K3457; 1450-2400m; VIII-IX, XII *

Riverine forest, moist or dry upland forest (edges); one recorded from wooded grassland.

Siborwet (MAA), Mugerugeru (TAI).



Gouania longispicata



Helinus integrifolius

4. HELINUS

Lianas or climbing shrubs with axillary tendrils. Leaves alternate. Flowers in axillary umbels. Flowers 5-merous. Fruit a capsule, separating into 3 mericarps.

1. Flowers and fruit glabrous; found at altitudes

300-1350m

1. *H. integrifolius*

* Flowers and fruit pubescent; found at (900)1450-

2400m

2. *H. mystacinus*

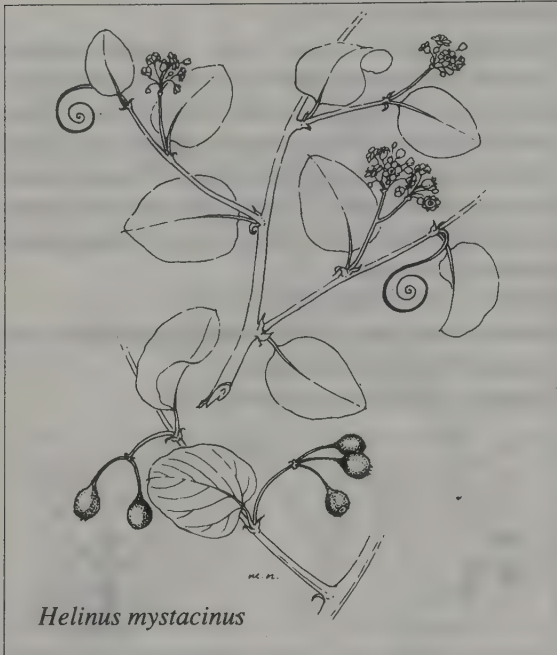
1. *Helinus integrifolius* (Lam.) Kuntze

Climber or decumbent shrub 0.5-3m (probably also larger); young stems reddish. Leaves (ob)ovate or elliptic, base rounded or subcordate, apex rounded (and often mucronate) or acute, 1-6 by 0.7-5cm, glabrous or pubescent. Flowers yellow-green, about 2mm, in stalked umbels. Fruit reddish to black, (sub-)globose, 5-7mm long.

K12347; 300-1350m; I, III-VI, IX-XII

Dry or semi-evergreen bushland, open woodland, thickets in grassland.

Ekoyeni-ekolle (MAA), Kanusia thenge (MER), Ekabaru (TUR).



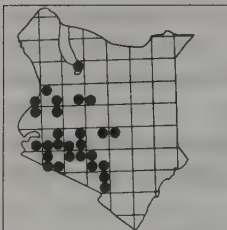
2. *Helinus mystacinus* (Ait.) Steud.

Climber 1-9m; occasionally thicket-forming. Identical to *H. integrifolius* but for the flowers, which are densely hairy, and the fruits, which are tuberculate and hairy.

K123456; (900) 1450-2400m; I-XII

Dry or semi-evergreen bushland, riverine bushland, dry forest (edges) or rarely in wooded grassland.

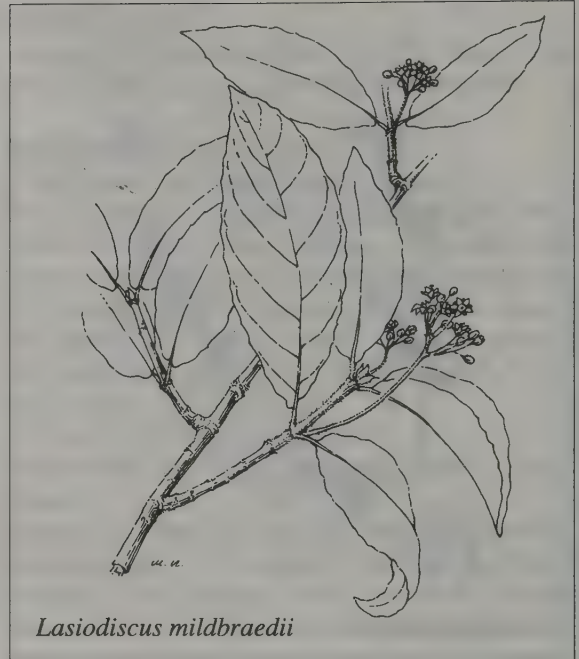
Makonda ya mburi (EMB), Mukudwa (KIK), Borowet (KIP), Ol-Mainiyen, Ngobitorangai (MAA), Tingwet (NAN).



Helinus mystacinus

5. LASIODISCUS

Shrubs or trees. Leaves (sub-)opposite. Inflorescences axillary, dichotomous, cymose. Flowers 5-merous, protandrous. Fruit breaking into 3 mericarps.



1. Leaves hairy on the veins beneath

1. *L. mildbraedii*

*** Leaves completely glabrous**

2. *L. pervillei*

1. *Lasiodiscus mildbraedii* Engl.

ssp. *ferrugineus* (Verdc.) Faden

(*L. ferrugineus* Verdc.)

VULNERABLE

Shrub or tree 1.5-6m; bark grey; young branches densely rusty-tomentose. Leaves elliptic, base rounded and minutely cordate, apex shortly and obtusely acuminate, margin shortly serrulate, 6-18 by 2-6.5cm, hairy on the veins beneath. Flowers white, to 3.5mm. Fruit (sub-)globose, to 10mm long, short-pubescent.

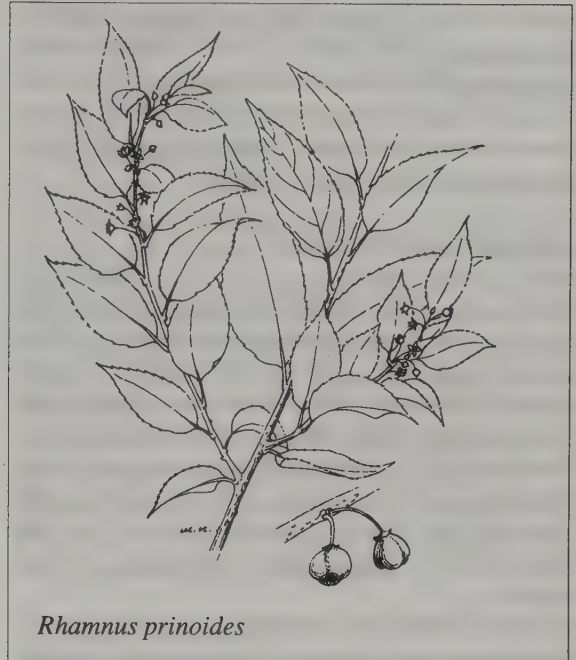
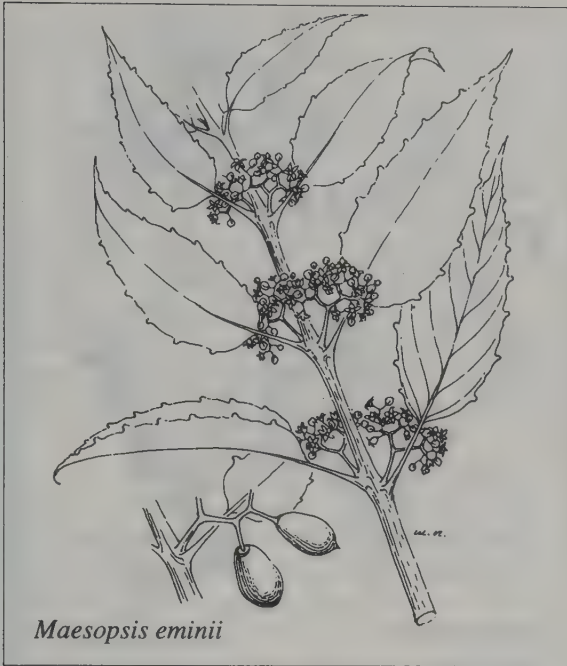
K7; 1-450m; VII, XI-XII *

Dry evergreen forest: Witu, Mangea, Arabuko-Sokoke. Mbage-Na-Mgaga, Muholoholo (SWA).

2. *Lasiodiscus pervillei* Baill.

Shrub or tree 2-10m, deciduous; bark grey, young branches glabrous. Leaves elliptic or ovate, base rounded or obtuse, apex acuminate, margin serrulate, 9-15 by 3-6cm, glabrous. Flowers white, in cymes; petals ≈ 3mm. Fruit (sub) globose, to 8 mm, glabrous. K7; ca. 5m; ?*

Collected twice at Kinondo, and once at Nomad (Diani).



6. MAESOPSIS

Trees. Leaves (sub-)opposite. Flowers 5-merous, in divaricately branched axillary cymes. Fruit a 1-seeded drupe.

Maesopsis eminii Engl. ssp. *eminii*

Tree 15-25(40)m, deciduous; bark silvery grey, furrowed; slash smelling of cold cooked chicken, red and yellow. Leaves elliptic or ovate, base cuneate to subcordate, apex acuminate, margin glandular-toothed, 7-14 by 2.5-6cm, glabrous (except when young). Flowers to 1.5mm. Fruit narrowly obovoid, 2.2-3 by 1-1.6cm.

K5 (Kakamega): 1550-1650m; - *

Rainforest and riverine forest. Collected in the wild only once (Machin OX 864) but widely cultivated for its timber.

Musizi (STAND), Mutere (TRADE & LUH), Muhunya (LUH).

7. RHAMNUS

Trees or (scrambling) shrubs. Leaves alternate. Flowers solitary, in fascicles, or in axillary cymes, 4- or 5-merous; petals present or absent. Fruit a 3(-4)-seeded drupe.

1. Leaves 1.5-4cm wide, ovate or elliptic

1. *R. prinoides*

- * Leaves 0.4-1.2cm wide, obovate 2. *R. staddo*

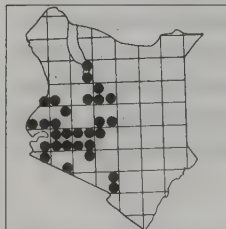
1. *Rhamnus prinoides* L'Hérit.

Shrub or tree 4.2-9(12)m, rarely scrambling. Bark grey. Leaves shiny above, ovate or elliptic, base rounded or cuneate, apex acuminate, margins glandular-serrulate, 2-10 by 1.5-4cm, glabrous or nearly so. Flowers (yellowish) green, in fascicles of 2-3(8), about 2mm long. Fruit red, turning (purple-)black, 3-lobed, subglobose, 5-6mm across.

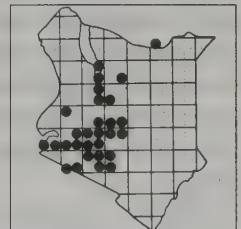
K13456; 1500-3150m; I-VIII, X-XII

Forest (edges), less often in secondary bushland or bamboo/heath zone.

Mfunganungu (CHA), Zambizi (KAM), Mukarakinga (KIK), Kosisitiet (KIP), Omungura (KIS), Ol-



Rhamnus prinoides



Rhamnus staddo

Konyii (MAA), Kosisit (MAR), Mugorona (MER), Kwasisitiet (NDO), Ikenyeli (SAM), Moyawaruwa, Muapuarua (SEB), Mizisitwa, Kukukua (TUG). Root decoction against indigestion by the Meru, against gonorrhoea by the Maasai, against malaria by Kipsigis, against rheumatism by Maasai.

2. *Rhamnus staddo* A.Rich.

(incl. *R. uhligii* Engl.)

Map p. 357

Shrub or tree 1-7.5m, rarely reported as scandent; bark smooth, grey. Short-shoots (many-noded twigs) often present; twigs occasionally thorn-tipped. Leaves (narrowly) obovate, rarely elliptic, base cuneate, apex blunt to acute, margin minutely glandular-serrate, 1-3(4.5) by 0.4-1.2(1.8)cm, glabrous or minutely hairy. Flowers greenish to yellow, solitary at the nodes, but when on short-shoots appearing fascicled, to 2mm long. Fruit red, turning black, subglobose, 5-5.5mm across.

K13456; (1200-)1500-2950m; I-II, IV-VII, IX-XII
Dry upland forest (edges) or (secondary) evergreen bushland, clump bushed grassland.

Gale (BOR), Muthunthi (KAM), Mubura (KIK), Kuisitiet, Ketarwet (KIP), Omonmanengo (KIS), Amurukia, Rahande (LUO), Ol-Kokol (MAA), Kipser (MAR), Mukuruu, Ngakula (MER), Korsosiat, Arapsoi (NDO), Ikokokai, Kokilai (SAM). Used against malaria by the Meru, against VD by the Maasai, against anaplasmosis by Meru.

8. SCUTIA

Shrubs or small trees with thorns. Branchlets and leaves (sub-)opposite. Flowers axillary, in congested cymes. Fruit a 2- or 3-seeded drupe.

Scutia myrtina (Burm.f.) Kurz

Shrub, often scrambling, or tree 1.5-9m (rarely a liana to 20m); bark smooth, grey, corky and fissured when older. Thorns axillary, recurved, often 2 per node, 2-12mm. Leaves shiny above, (ob-)ovate or elliptic, base cuneate or rounded, apex rounded and apiculate, emarginate or rarely slightly acuminate, margin entire or somewhat crenulate to dentate in upper two-thirds, 2-6 by 1.5-4cm, glabrous. Flowers greenish-white, to 2mm. Fruit red to (purplish-)black, obovoid, 7-9mm across.

K1234567; 1-2750m; I-XII.

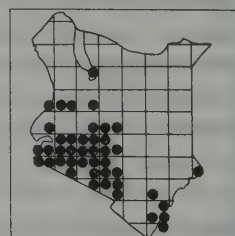
Moist or dry forest (edge), riverine, evergreen or dry



bushland, bushed or tree grassland.

Tsina (BON), Mrega (CHAG), Munyahi (GIR), Kitumbuu (KAM), Muhurangware, Mulangari (KIK), Simbejwet (KIP), Migodha, Osiri (LUO), Ol-Sanan-gurure (MAA), Sumbeyiwa, Tolgokwa (MAR), Laturudei, Sanunguri (SAM), Letwa (SEB), Sumboywa (TUG). Fruit edible.

Scutia myrtina

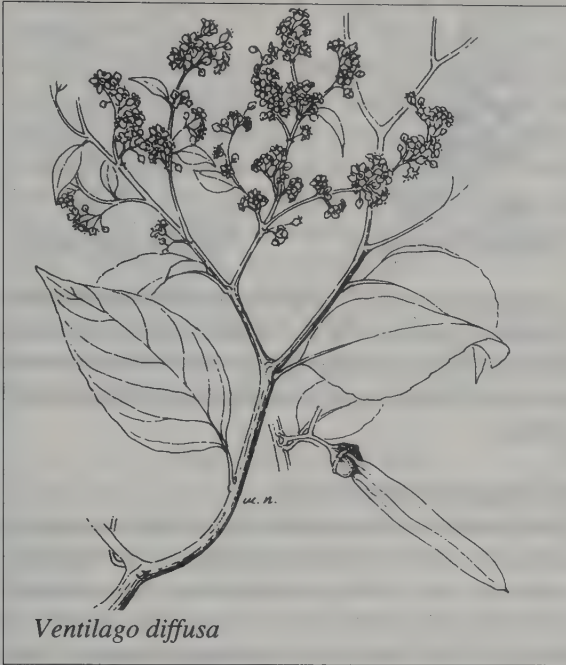


9. VENTILAGO

Lianas. Leaves alternate. Flowers 5-merous, in axillary panicle-like inflorescences. Fruit dry, with a globose body and a long terminal wing.

Ventilago diffusa (G.Don) Exell

Large liana (to 35m or more); bark smooth, grey. Leaves ovate, base rounded, apex acute or acuminate, margin crenulate or serrulate, 7-11 by 3-5cm, glabrous



except for the veins beneath; petals about 1mm. Flowers yellow-green, in hanging inflorescences to 20cm long. Fruit including the wing 5-7cm long, wing 8-10mm wide.

K5; once collected in Kakamega forest (Drummond & Hemsley 4793, October 1953) at 1600m alt.

10. ZIZIPHUS

Trees or shrubs, often with spiny stipules; the branches often zig-zag. Leaves alternate or opposite, 3-veined from base, with serrulate margins. Flowers 5-merous, usually axillary, in cymes or thyrses. Fruit a one-seeded drupe.

- | | |
|---|----------------------------|
| 1. Branches unarmed | 6 |
| * Branches with spines | 2 |
| 2. Leaves felty-tomentose beneath | 3 |
| * Leaves glabrous or pilose | 4 |
| 3. Leafbase asymmetrical | 1. <i>Z. abyssinica</i> |
| * Leafbase more or less symmetrical | 3. <i>Z. mauritiana</i> |
| 4. Leaves 0.8-2 by 0.5-1.2cm | 2. <i>Z. hamur</i> |
| * Leaves larger than 2 by 1cm | 5 |
| 5. Leaves large, 3-9 by 2-6cm, often acuminate; flowers almost glabrous | 4. <i>Z. mucronata</i> |
| * Leaves small, 2-4 by 1-2cm, never acuminate; flowers hairy | 7. <i>Z. spina-christi</i> |

6. Leaves sparsely pubescent beneath

5. *Z. pubescens*

- * Leaves glabrous

6. *Z. robertsoniana*

1. Ziziphus abyssinica A.Rich.

Tree, shrub or climber 1.8-8m; bark grey, deeply furrowed; branchlets zig-zag, mostly armed with single or paired curved thorns to 12mm. Leaves ovate, base rounded and asymmetric, apex obtuse, acute or acuminate, margin serrulate, 5-10 by 3-7cm, densely pale-brown pubescent beneath. Flowers yellow-green, to 20mm long, in 1-2cm long cymes. Fruit red, globose, 2-3cm across.

K1234567; 700-2200m; I, III, V-IX, XI-XII

Dry bushland, woodland, wooded grassland.

Qurgura (BOR), K'urkuura (GAB), Muae (KAM), Kumukomboti (LUH), Thilarii (MER), Katagi (SEB). Fruit edible; wood hard and durable.

2. Ziziphus hamur Engl.

Shrub 1-2m; bark grey; branchlets zig-zag, with pairs of straight thorns to 12mm. Leaves often fascicled at the nodes, elliptic, base rounded or broadly cuneate, apex rounded or emarginate, margin entire or minutely serrulate, 0.8-2 by 0.5-1.2cm, pilose. Flowers pale green or white, to 1.2mm long, in few-flowered cymes. Fruit black, globose, 7-10mm across.

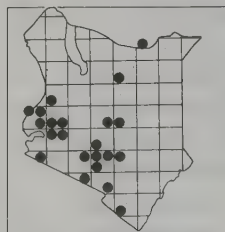
K1; 350-400m; V *

Collected only twice in woodland or bushland on limestone: extreme NE Kenya.

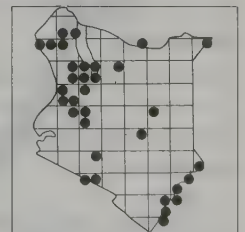
Hamr (SOM).

3. Ziziphus mauritiana Lam.

Shrub or tree 2.5-12m tall; crown spreading; bark silvery or dark grey, branchlets zig-zag, with pairs of thorns at the nodes (one curved, one straight). Leaves ovate, elliptic or nearly round, base rounded, apex obtuse, margin serrulate, 3-8 by 1.5-5cm, densely pale-tomentose beneath. Flowers yellow-green, to



Ziziphus abyssinica



Ziziphus mauritiana

2mm long, in 1-2cm long cymes. Fruit yellow or orange, globose, 1-2cm across.

K123467; 1-1800m; I-XII

In riverine bushland or woodland, along lugga's, near the sea. Possibly introduced.

Jujube (STAND), Qurgura (BOR), Mkunazi (SWA, GIR), Tilomwa (MAR), Tlomwo, Tlomwa (PKT), Qasa (REN), Gub (SOM), Tilolwo (TUG), Ekalale (TUR). Fruit edible; bark used against diarrhoea by Pokot, against indigestion by Pokot, against coughing by Turkana. The timber is used for dhow ribs.

4. *Ziziphus mucronata* Willd. ssp. *mucronata*

Shrub or tree 2-15m; bark greybrown, reticulate-scaly. Young branches zig-zag with thorns in pairs at the nodes (pointing in different directions). Leaves ovate, base rounded or cordate, and often asymmetrical, apex acuminate or acute (obtuse), margin serrulate, 3-9 by 2-6cm, glabrous or slightly hairy. Flowers yellow-green, to 2mm long in 0.5-1.5cm long cymes. Fruit yellow or red, globose, 1-2cm across.

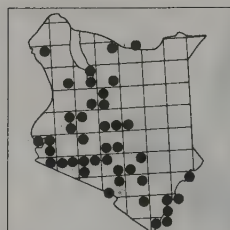
K1234567; 1-1950m; I-VIII, X-XII

Along rivers or luggas, in bushland, woodland, or wooded grassland.

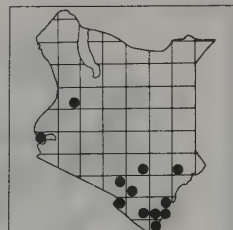
Buffalo Thorn (STAND), Mkunazi (SWA), Mun-gugune (DIG), Mguguna (GIR), Mimanbilot (KIP),



Ziziphus mucronata



Ziziphus mucronata



Ziziphus pubescens

Lang'o, Longo (LUO), Ol-Oilaile (MAA), Nonoiywa (MAR), Tirokwo (PKT), Loilalei (SAM), Ninoiwa, Noiwa (TUG), Esilang, Amaleri (TUR). Fruit edible, but sour; wood tough, used for housebuilding (roof beams).

5. *Ziziphus pubescens* Oliv.

Shrub or tree 2-15m, unarmed; bark rough, greybrown. Leaves narrowly ovate, base rounded, somewhat asymmetrical, apex shortly acuminate or acute, margin serrulate (each point with a gland and a bundle of hairs), 3-8 by 2-4cm, thinly pubescent beneath. Flowers yellow-green, to 1.5mm long, in 0.5-1cm long cymes. Fruit yellow or red, globose, 0.7-1cm across.

K34567; 1-1350m; I, XI-XII

Riverine, in swamp forest, in bushed or wooded grassland.

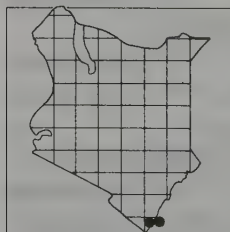
Mkone (SWA), Mguguna (GIR). Fruit edible.

6. *Ziziphus robertsoniana* Beentje sp. nov. ined.

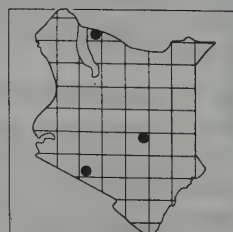
RARE

Tree 12-16m, without spines; bark smooth, with shallow vertical fissures. Leaves ovate, base rounded, apex acute, margins dentate, 3-9.5 by 1.7-4.5cm, glabrous (occ. with some hairs on midrib), 3-veined from the base. Flowers green. Fruits obovoid, ca. 10mm long.

K7; 1-200m; in semi-evergreen forest on Dzombo, Mrima, Diani, Chale Isl. (Robertson 4274, 4438, 4675) and Kinondo (Robertson 3645).



Ziziphus robertsoniana



Ziziphus spina-christi

7. *Ziziphus spina-christi* (L.) Desf. var. *microphylla* A.Rich.

Shrub or tree to 4(10)m, occasionally prostrate; branchlets zig-zag with 2 thorns (1 straight, 1 curved) to 16mm. Leaves (narrowly) ovate to elliptic, base rounded, apex obtuse or acute, margin minutely serrulate, 2-4 by 1-2cm, almost glabrous in mature leaves. Flowers yellow-green, to 2mm long, in cymes to 1cm long. Fruit globose, about 1cm across.

K1267; 300-600m; II, VII *

Near water in dry areas.

Note: two specimens are known from Kora Game Reserve which tend towards var. *spina-christi*.

193. VITACEAE

Leaves alternate, with petiolar (and often caducous) stipules. Tendrils, if present, branched, leaf-opposed or from the peduncle. Petals 4-6, free. Stamens opposite the petals. Fruit a berry.

- | | |
|---|------------------------|
| 1. Leaves simple | 2 |
| * Leaves compound | 3 |
| 2. Petals 4; tendrils leaf-opposed | 2. <i>Cissus</i> |
| * Petals 5; tendrils from the peduncle | |
| | 1. <i>Ampelocissus</i> |
| 3. Leaves 3-foliolate | 4 |
| * Leaves bipinnate | 4. <i>Leea</i> |
| 4. Petals 4; disk of separate glands. Fruit red | 3. <i>Cyphostemma</i> |
| * Petals 5-6; disk entire. Fruit black | |
| | 5. <i>Rhoicissus</i> |

1. AMPELOCISSUS

***Ampelocissus africana* (Lour.) Merr.**

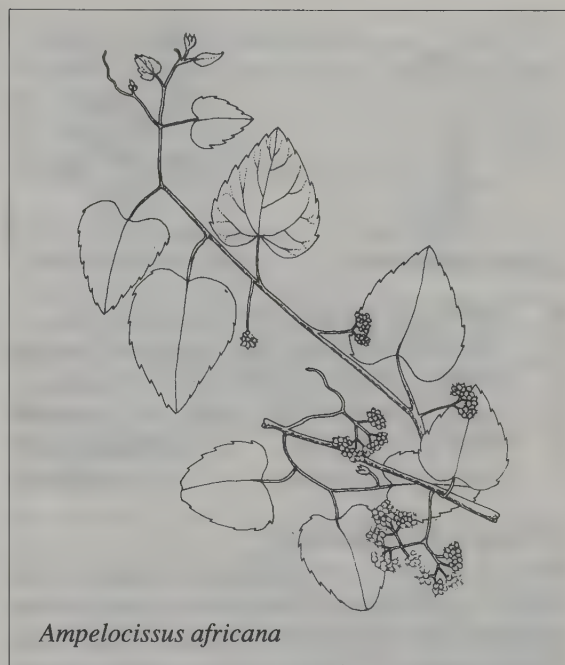
Climbing shrub or liana, 0.5-9m long, with branched tendrils. Leaves entire or 3-5-lobed, base deeply cordate, apex rounded or acute, margin serrate, 4-14 by 5-15cm, pubescent or glabrous. Flowers red, in dense head-like cymes; petals about 1.5mm long. Fruit round, about 1cm.

K357; 1-150 (coastal) & 1450-1800m; I-VI *

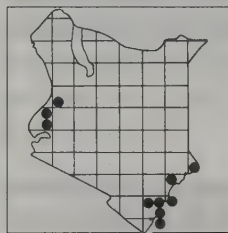
Riverine or coastal bush/woodland.

Mnuamaji (SWA, GIR).

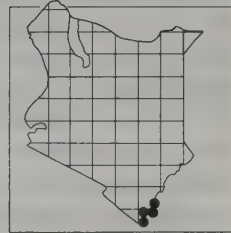
***Ampelocissus obtusata* (Bak.) Planch. ssp. *kirkiana* (Planch.) Wild & Drum.** is a liana that has been found on the coast, in forests from Gongoni to Cha Simba. It differs in the white cottony down on the undersurface of the digitate leaves.



Ampelocissus africana



Ampelocissus africana

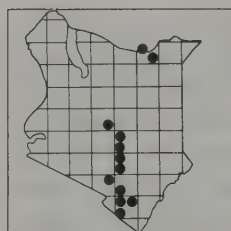
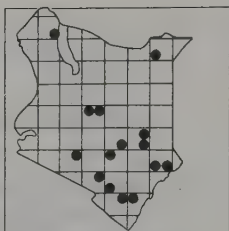
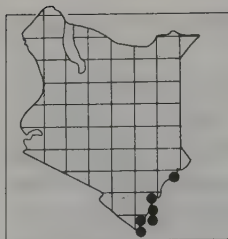
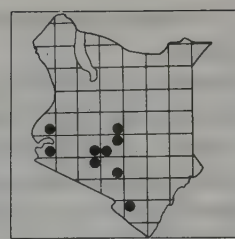


Ampelocissus obtusata

2. CISSUS

Leaves entire or lobed; tendrils always present.

- | | |
|--|------------------------------|
| 1. Stems and leaves succulent/fleshy | 2 |
| * Stems and leaves not fleshy | 4 |
| 2. Stems and branches winged, the wings over 2mm broad, never corky | 7 |
| * Stems and branches not winged or rarely with corky wings | 3 |
| 3. Tendrils simple; coastal | 7. <i>C. quinquangularis</i> |
| * Tendrils forked; widespread | 8. <i>C. rotundifolia</i> |
| 4. Leaf apex obtuse; dry bushland inland | |
| | 1. <i>C. aphyllantha</i> |
| * Leaf apex acute or acuminate; forest, or coastal bushland | 5 |
| 5. Leaf margin entire or slightly toothed; coastal species below 500m alt. | 3. <i>C. integrifolia</i> |
| * Leaf margin toothed; inland species, above 1000m alt. | 6 |

*Cissus aphyllantha**Cissus cactiformis**Cissus integrifolia**Cissus oliveri*

6. Tendrils forked; leaf apex long-acuminate;
older stems without corky wings 4. *C. oliveri*
* Tendrils simple; leaf apex short-acuminate;
older stems with corky wings 5. *C. petiolata*
7. Stems ≤ 15 mm across 6. *C. quadrangularis*
* Stems ≥ 20 mm across 2. *C. cactiformis*

1. *Cissus aphyllantha* Gilg.

Shrub or climber 1-4m, deciduous, flowering when leafless; tendrils simple (rarely forked), roots swollen. Leaves broadly ovate, base cordate, apex obtuse, margin crenate-dentate, 1.5-4 by 1.5-3.5cm, densely puberulous. Flowers yellow, in short many-flowered cymes; petals about 1.5mm. Fruit dull red, ovoid with a pointed apex, 9-12 by 4-7mm.

K147; 550-1350m; III, VIII-X *

Dry, rocky bushland.

Chobi Badesu (BOR), Mwelengwa (KAM), Halakuyo (ORM), Chabhi (SOM). Fruit more or less edible.

2. *Cissus cactiformis* Gilg

Succulent climber 0.5-4.5m long, with 4-winged stems 2-8 cm across. Tendrils long. Leaves very ephemeral, deeply lobed, to 2cm long. Flowers yellow-green, in rather dense cymes from the nodes; petals about 2mm long. Fruit as in *C. aphyllantha*, but possibly much larger.

K123467; 200-1200m; V-VIII, XI*

Dry rocky bushland.

Matbot, Gorsa-Guraj (BOR).

3. *Cissus integrifolia* (Bak.) Planch.

Climber to 5 (15)m with once-forked tendrils. Leaves broadly ovate, base truncate or cordate, apex acute to acuminate, margin entire or somewhat dentate, 5-13 by 4-11cm, glabrous. Flowers yellow-green, in lax cymes; petals about 2mm. Fruit red, ellipsoid, up to 2.5 by 2.5cm.

K7; 1-450m; V-VII, IX *

Moist or dry forest or bushland close to the sea. Mgongolo (SWA).

Note: a number of specimens with almost truncate leafbases might be distinct (e.g. Verdcourt 3964 from Mrima).

4. *Cissus oliveri* (Engl.) Gilg

Climber to at least 5m with aerial roots; tendrils forked. Leaves ovate, base deeply cordate, apex long-acuminate, margin dentate (teeth to 1.5mm), 6-15 by 3-10cm, glabrous. Flowers yellow and red, in rather lax compound umbels; petals about 1.5mm. Fruit dark red, ellipsoid with pointed apex, 7-10 by 4-6mm.

K457; 1200-1950m; V, VII-X *

(Riverine) forest.

Gachoka (KIK).

Note: *C. sciaphila* Gilg, found at the coast up to 400 m alt., is similar but hairy.

5. *Cissus petiolata* Hook.f.

Climber to at least 10m; stems 4-angled, with corky wings on older stems. Tendrils simple. Leaves broadly ovate, base cordate, apex acuminate, margin dentate (teeth to 1mm), 5-13 by 5-12cm, glabrous. Flowers white (?), in dense umbellate cymes; petals about 2mm. Fruit round, 8-10mm.

K347; 1050-1800m; III, V *

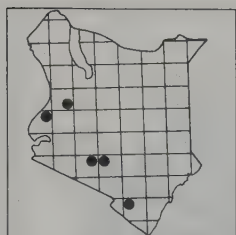
(Riverine) forest.

6. *Cissus quadrangularis* L.

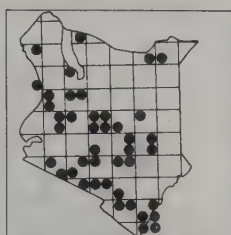
Climbing succulent, 2-4m, with 4-angled stems, the wings at the angles 2-15mm broad; tendrils simple. Leaves (only rarely present) fleshy, entire or deeply 3-lobed, base truncate or cordate, apex obtuse, margin dentate, 3-6 by 2-7cm, glabrous or sparsely hairy. Flowers white or yellow-green, in lax cymes; petals 2-3mm. Fruit red, 8-10 by 6mm.

K123467; 1-1700m; III-V, VII-XII

Dry bushland or wooded grassland, often in rocky sites



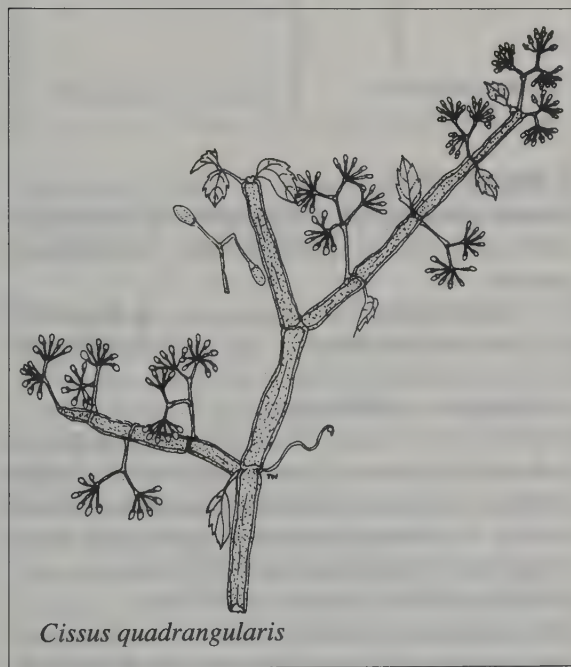
Cissus petiolata



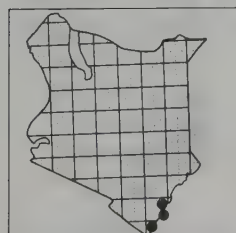
Cissus quadrangularis

or along luggas and rivers; on the coast occasionally in dry forest margins.

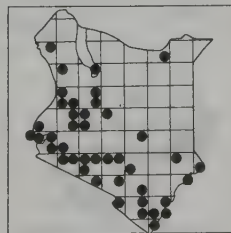
Mbugu-Nyama (SWA), Mwachero (DIG), Chepkere-siet (KIP), Olrarait, Sugurututi (MAA), Tutuyon (PKT), Egis (TUR). A root infusion is employed against chest pain by the Turkana, who also use it as a pesticide against termites. The fruit is said to be poisonous.



Cissus quadrangularis



Cissus quinquangularis



Cissus rotundifolia

7. *Cissus quinquangularis* Chiov.

Succulent climber quite similar to *C. quadrangularis*, but stems 5-angled.

K7; 1-500m; — *

Forest or woodland on limestone or coral.

8. *Cissus rotundifolia* (Forssk.) Vahl.

Climber 2-9m, with succulent 4-5-angled stems, sometimes with corky wings; tendrils once forked. Leaves fleshy, circular to broadly ovate, base (sub) cordate, apex obtuse, margins crenate, 3-8 by 3-9cm, glabrous. Flowers cream or yellow-green, in lax cymes; petals 3-3.5mm. Fruit round or ellipsoid, 8-15 by 6-13mm.

K1234567; 1-1800m; II-V, VII-XII (III)

Dry bushland, coastal bushland, riverine woodland; less often in dry forest edges.

Chobi Kawra (BOR), Mdoka Doka (DIG), Mtsuchi (GIR), Itulu (KAM), Chepkurisiet (KIP), Kalera, Minya (LUO), Olararait (MAA), Kwarkwarian (PKT), Rarait (SAM), Cherorowo (TUG), Lorodo (TUR). The bark is used for rope; roasted leaves are used to reduce swellings (e.g. bee stings) by the Tugen; Somali use a leaf decoction against stomach aches; the fruit is said to be edible.

3. CYPHOSTEMMA

Leaves palmately divided; inflorescence cymose; fruit a berry.

1. Climbing branches emerging from top of succulent trunk

1. *C. jiguu*

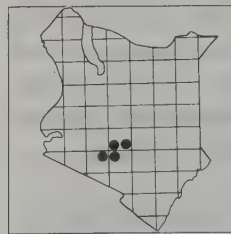
- * No succulent trunk present

2. *C. kilimandscharica*

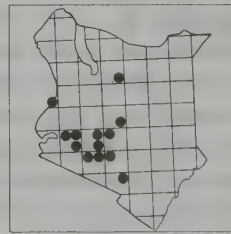
1. *Cyphostemma jiguu* Verdc.

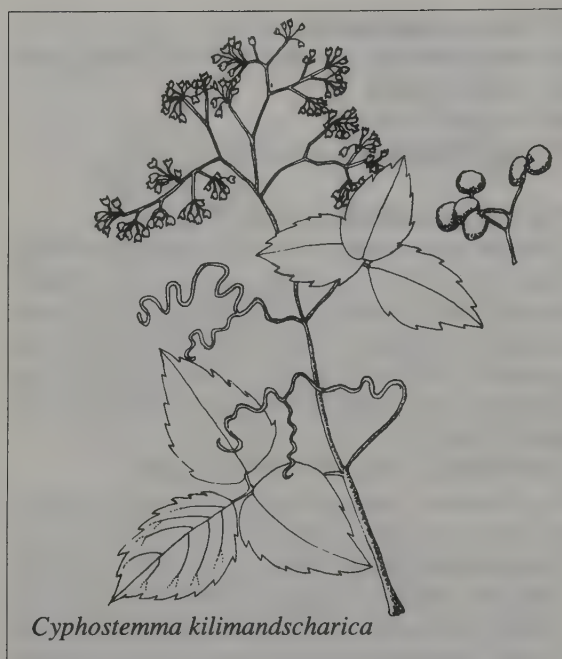
(*C. pachypus* Verdc., *C. sp.* of checklist) RARE

Climber, main trunk succulent, 1.5-2.5m, with climbing branches emerging from its almost flat apex; climbing branches to 6m long; tendrils simple. Leaves



Cyphostemma jiguu *Cyphostemma kilimandscharica*





3-foliolate, the leaflets ovate to obovate with crenate-dentate margins. Flowers yellow-green, in lax cymes; petals about 4mm. Fruit reddish, round or ellipsoid, 8-9 by 6-8mm.

K14; 1400-1700m; V *

Riverine bush or dry upland forest.

2. *Cyphostemma kilimandscharica* (Gilg) Descoings
Robust climber 1.5-20m; tendrils branched once. Leaves shiny, 3-foliolate with the leaflets ovate and with crenate-serrate margins. Flowers white or cream, with red tips, in lax cymes; petals to 4.5mm. Fruit red or purple, ellipsoid, with a pointed apex, 10-14 by 6-9mm.

K13456; 1400-2700m; II-IV, VII-VIII, X-XII.

Forest or bamboo.

Map p. 363

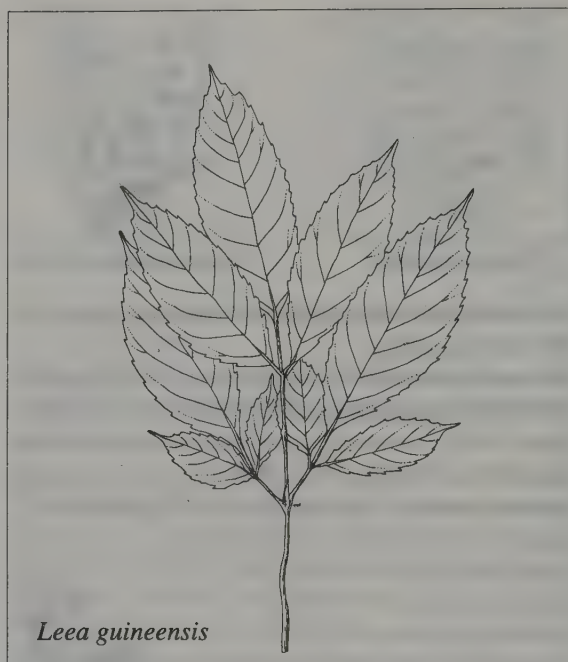
4. LEEA

Leea guineensis G. Don

Shrub 1-3m. Leaves bipinnate, with 5 pinnae and 3-5 leaflets per pinna; leaflets elliptic, acuminate, with serrate-dentate margins. Flowers and inflorescence orange to red, a lax cyme; petals about 5mm. Fruit red to black, globose, 3-8-lobed, 6-9mm across.

K5; 1450-1600m; III-IV, XII *

Kakamega forest; in 1943 also collected at Bukura. Mundana (LUH).



5. RHOICISSUS

Tendrils leaf-opposed, not on flowering branches, so rarely collected. Leaves 3-foliolate. Inflorescence cymose.

1. Leaf margin entire

1. *R. revouilii*

* Leaf margin toothed

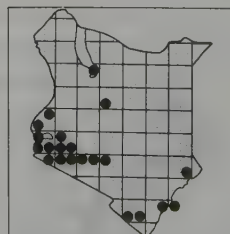
2. *R. tridentata*

1. *Rhoicissus revouilii* Planch.

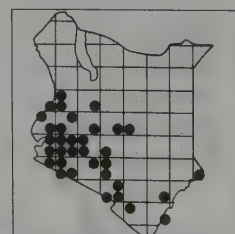
Climber 3-4 (or more ?); tendrils often absent in herbarium specimens. Leaves 3-foliolate, the leaflets elliptic and the laterals often very asymmetric, glabrous or hairy. Flowers reddish brown, in lax cymes; petals about 3mm. Fruit black, round, 10-15mm.

K13467; 1-2100m; I-II, IV-VI, VIII-IX

Forest margins, riverine vegetation, wooded grassland, bushed grassland and moister types of bushland. Mgongolo (SWA), Tarotuet (LUM), Rabongo (LUO),



Rhoicissus revouilii



Rhoicissus tridentata



Ngelenyei (MAA). The stem juice is used as an antiseptic by the Maasai; stem fibres are used in weaving.

2. *Rhoicissus tridentata* (L.f.) Wild & Drum.

Shrub 1.5m or climber to 9m; tendrils often absent in herbarium collections. Leaves trifoliate, as in *R. revoilii*, always hairy. Flowers as in *R. revoilii*. Fruit black, about 1cm across.

K1234567; 1-2250m; II-IV, VI-VIII, XI

Wooded grassland or bushland, usually on rocky hill-sides; also in drier forest margins.

Munwamadzi (DIG), Kivosya Nguguu (KAM), Mutumutua (KIK), Omonyambeche, Egesanga (KIS), Dorodwet (KIP), Ol-Kilenyei (MAA), Iwambova, Torotwa (MAR), Taratwo (PKT), Mgerugeru (TAI). A root decoction is anthelmintic, but overdosing may be fatal. The sap of branches is antiseptic and causes numbness. Stems are used for rope.

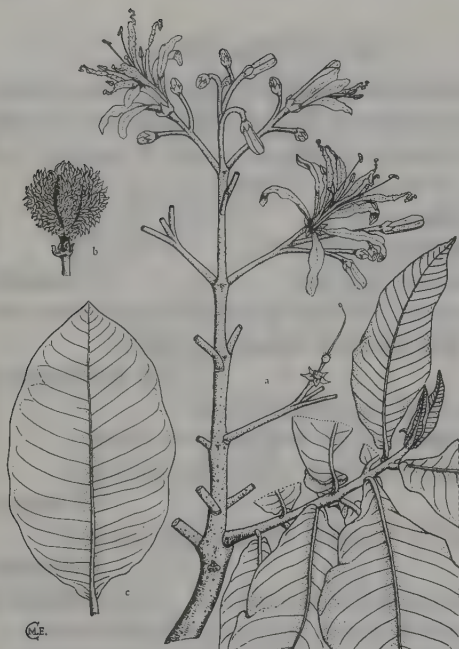
194. **RUTACEAE**

Leaves alternate or opposite, aromatic when crushed, with pellucid glands (at least near the margin); usually without stipules. Sepals 4-5, petals 4, stamens 3-10, style 1. Fruit a berry or drupe.

1. Branches spiny 2
- * Branches unarmed 3
2. Leaflets 3 per leaf 7. *Toddalia*
- * Leaflets 5 or more (rarely with 3 and then with small prickles on leaflet midrib) 10. *Zanthoxylum*
3. Leaflets 5 or more per leaf 4
- * Leaflets 1-3 per leaf, or leaves simple 5
4. Leaves alternate; inflorescence axillary 2. *Clausena*
- * Leaves opposite; inflorescence terminal 5. *Fagaropsis*
5. Leaves opposite, simple 1. *Calodendrum*
- * Leaves alternate, or if opposite then with 3 leaflets 6
6. Margins of leaflets (minutely) toothed 9. *Vepris*
- * Margins of leaflets entire 7
7. Flowering material 8
- * Fruiting material 10
8. Stamens 4-5 (in female flowers; staminodes) 6. *Teclea*
- * Stamens 8 (in female flowers: staminodes) (unknown for 3. *Diphasia*, 4. *Diphasiopsis*) 9
9. Coastal shrub with 3 stalked leaflets per leaf 8. *Toddaliopsis*
- * Inland plants or, when coastal, the leaflets 1 per leaf or sessile 9. *Vepris*
10. Fruit 4-angled, warty 8. *Toddaliopsis*
- * Fruit smooth 11
11. Fruit ellipsoid, 20-25 by 10-13mm; Chylus to Kasigau 4. *Diphasiopsis*
- * Fruit up to 18mm long 12
12. Fruit usually 2-4 seeded 13
- * Fruit 1-seeded 6. *Teclea*, some 9. *Vepris*
13. Large tree restricted to Kaya Kinondo (coast) 3. *Diphasia*
- * Widespread 9. *Vepris*

1. CALODENDRUM

Leaves simple, opposite, gland-dotted. Flowers 5-merous, in terminal panicles; stamens 5; 5 petaloid staminodes present. Fruit a woody 5-valved capsule.



Calodendrum capense (L.f.) Thunb.

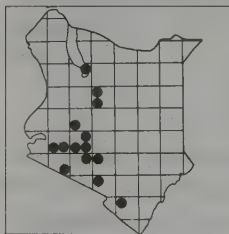
a: flowering branchlet ($\times \frac{1}{2}$); b: fruit ($\times \frac{1}{2}$); c: leaf ($\times \frac{1}{2}$).
a & c: from tree in Coryndon Museum grounds; b: from Napier 56.

Calodendrum capense (L.f.) Thunb.

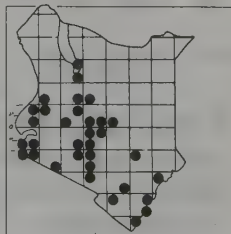
Tree 5-15m; bark grey, smooth. Leaves (broadly) ellipsoid, base cuneate to narrow and subcordate, apex acute or obtuse, 6-17 by 3.5-10cm, (stellate-)hairy when young but glabrescent. Flowers pink, with pink or white dark-dotted staminodes, in panicles to 15cm; petals 20-35mm long. Fruit round, covered in warty prickles, 3-5cm across, with black seeds.

K13467; 1600-2300m; I-IV, VI-X, XII (III, XII)

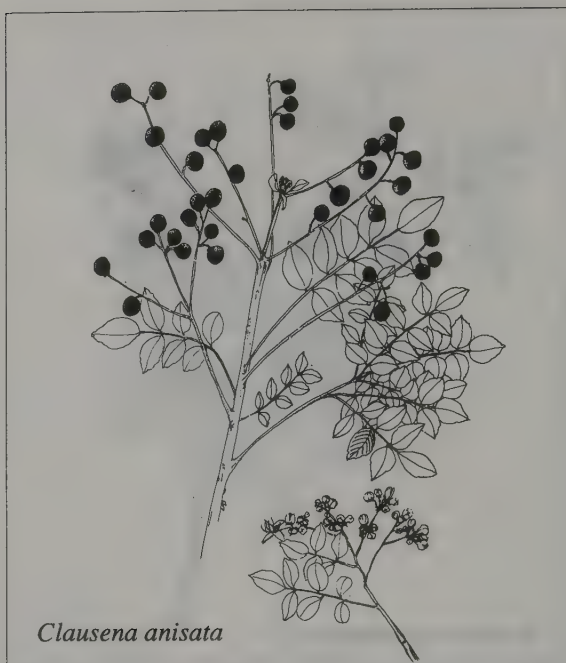
Dry upland forest (remnants), also in riverine forest. Cape Chestnut (STAND), Mucarage, Murarachi (KIK), Yangu (KAM), Kipkaria, Sasuriet (KIP), Ol-Larashi (MAA), Mutimueru, Mujai (MER), Larachi (SAM), Mogorusi (TAI). The timber is tough and bends well, and is used in house building; the wood is used for implements like stools and knife handles. A very beautiful tree, also planted in gardens.



Calodendrum capense



Clausena anisata



Clausena anisata

2. CLAUSENA

Leaves alternate, imparipinnate, aromatic. Inflorescence an axillary panicle. Sepals and petals 4-5, stamens 8-10. Fruit a fleshy berry.

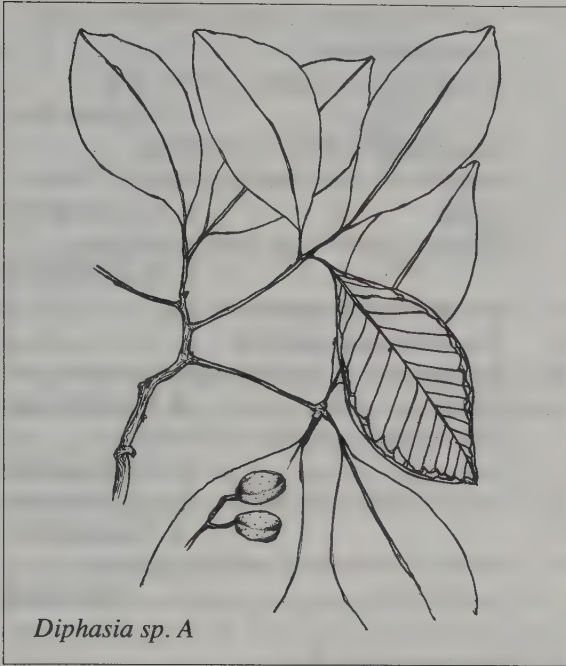
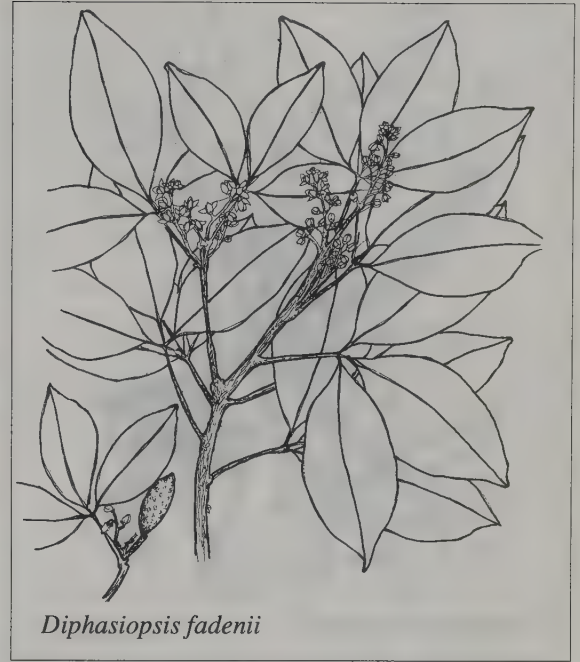
Clausena anisata (Willd.) Benth.

Shrub, tree or liana 2-7.5m, deciduous. Leaves aromatic, smelling of anise (at the coast) or lemon (near Nairobi); leaflets 11-37, base very asymmetric, apex obtuse or acute, 1-8 by 0.7-4cm, pubescent, becoming glabrous; margins sometimes crenulate. Flowers white or cream, in panicles to 20(35)cm long; petals 2.5-7mm long. Fruit purple, round, 4-8mm.

K1234567; 1-2650m; I-XII (I, XII)

Moist or dry forest(margins), secondary bushland, riverine; in western Kenya sometimes in wooded grassland.

Siskar (BOR), Munyapala (DIG), Muthingwa (KAM), Muthathi (KIK), Shingulutsi, Shisimbari (LUH), Ol-Matasia (MAA), Munyithia, Cheboinoiywa (MAR), Mukibia (MER). A root decoction is used against a wide variety of complaints, such as whooping cough, malaria and various aches.

*Diphasia sp. A**Diphasiopsis fadenii*

3. DIPHASIA

Leaves alternate, trifoliate. Inflorescence a terminal and/or axillary panicle; sepals, petals and stamens 4. Fruit 2-lobed.

Diphasia sp. A of FTEA **ENDANGERED**

Tree to 25m, evergreen; bark smooth, grey. Leaflets obovate, 12-18 by 6-8cm, glabrous. Flowers unknown. Fruit ovoid, 12-15mm long, 2-seeded.

K7; collected once (Faden & Faden 77/389) at Kaya Kinondo.

4. DIPHASIOPSIS

Leaves alternate or opposite, trifoliate. Inflorescence of terminal and axillary panicles; sepals & petals 4, stamens 8. Fruit a 1-seeded berry.

Diphasiopsis fadenii Kokwaro **RARE**

Tree or shrub 3-22m; bark grey. Leaflets elliptic or slightly obovate, base cuneate, apex obtuse to acute (acuminate), 4-16 by 2-8cm, glabrous. Flowers cream, in panicles 2.5-7cm; petals 2.5-3.5mm long. Fruit yellow, ellipsoid, 20-25 by 10-13mm.

K4/6,7; 1250-1950m; I *

Moist forest (Chyulu, Mbololo, Kasigau) or thicket on rocky hills (near Murka, Ngulia).

5. FAGAROPSIS

Leaves opposite, imparipinnate, dioecious. Inflorescence of terminal panicles; sepals and petals 4, stamens 4-8. Fruit a berry, 2-4-seeded.

1. Leaflets glabrous (except the midrib)

1. *F. angolensis*

* Leaflets tomentellous beneath

2. *F. hildebrandtii*

1. *Fagaropsis angolensis* (Engl.) Dale

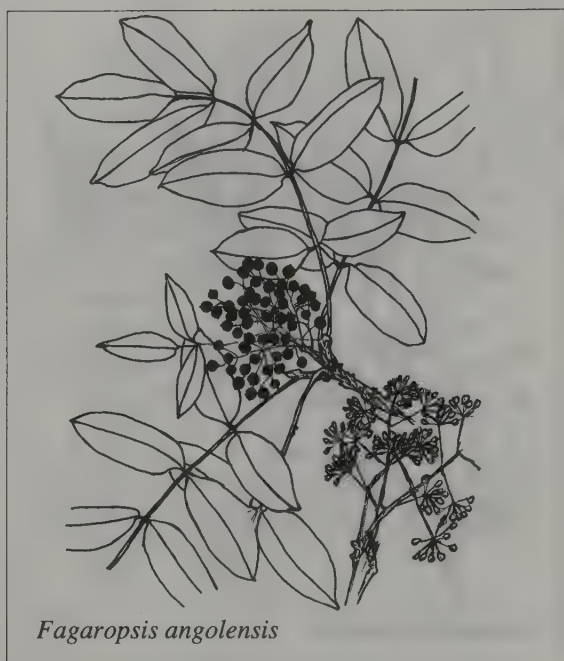
Tree (5) 10-24m, deciduous; bark pinkish-grey, slightly rough, sometimes covered with corky outgrowths. Leaves with 5-11 leaflets, these elliptic, with gland-dots mainly near the margin, 4-9 by 2-5cm, glabrous but for the midrib. Flowers yellowish, in panicles 3-12cm long; petals 3.5-6mm long. Fruit purple, round, 6-8mm.

K34567; 1150-2100m; III, XI-XII *

Dry (less often in moist) forest.

Mafu (STAND), Murumu (STAND & MER), Myinja (TRADE), Mukaragati (KIK), Shingulotso (LUH), Kwiril (MAR), Mukuriampungu (MER), Noiyywet (NAN). Wood hard, strong, not durable in the ground; used in furniture-making.

Note: this tree is often mistaken for an *Ekebergia*; the glands on the leaflets distinguish it.



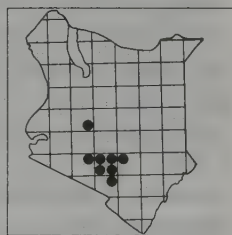
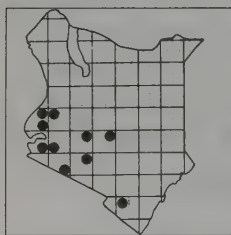
2. *Fagaropsis hildebrandtii* (Engl.) Milne-Redh.

Shrub or tree 2-6m, deciduous. Leaves with 5-9 leaflets, these ovate, glandular along the margin, 2.5-7 by 1-4cm, tomentellous beneath. Flowers yellowish, in panicles 2-6cm long; petals 3.5-6mm long. Fruit round, 6-8mm.

K34; 1050-1900m; XI-XII *

Rocky evergreen bush-or woodland, or dry forest (riverine?).

Note: this might just be a ecological form of *F. angolensis*.



Fagaropsis angolensis *Fagaropsis hildebrandtii*

6. TECLEA

Leaves alternate, often aromatic, 1-3-foliate. Flowers 4-5-merous, stamens 4-5. Fruit a drupe.

1. Leaves 1-foliate

2

- * Leaves 3-foliate (some 1-2 foliolate ones many be present) **4**
- 2. Coastal species; petals 1-1.5mm long **1. *T. amaniensis***
- * Inland species; petals 2-4mm long **3**
- 3. Pedicels less than 1mm long; fruit 15-18mm long **3. *T. hanangensis***
- * Pedicels 1-6mm long; fruit 6-10mm long **5. *T. simplicifolia***
- 4. Young branches pubescent **5**
- * Young branches glabrous **6**
- 5. Inflorescence an axillary raceme less than 3cm long **6. *T. trichocarpa***
- * Inflorescence a panicle to 17cm long **3. *T. hanangensis***
- 6. Petals 1-3mm long; panicles hairy (Kakamega) **2. *T. grandifolia***
- * Petals 3.5-4mm long; panicles glabrous **4. *T. nobilis***

1. *Teclea amaniensis* Engl.

Shrub 1-2m. Leaves 1-(3)-foliolate, the leaflet elliptic, base cuneate, apex bluntly acuminate, 8-17 by 4.5-9cm, glabrous, petiole jointed near apex. Flowers greenish, in axillary panicles 1-6cm long; petals 1-1.5mm long. Fruit red, ellipsoid, 12-16 by 5-7mm.

K7; 50-375m; - *

Moist forest, Shimba Hills, Gongoni, Muhaka, Buda. Note: hybrids with *T. trichocarpa* have been found at Chonyi, Pangani, Kambe and Rabai.

2. *Teclea grandifolia* Engl.

Shrub or tree 4-11m, evergreen; bark yellow-brown, rough, flaking. Leaves (1-)3-foliate, the leaflets elliptic, base obliquely cuneate, apex acuminate, 7-19 by 2.5-7cm, glabrous (except, occasionally, for the midrib). Flowers cream, in axillary and terminal panicles 3-5cm long; petals 1-3mm long. Fruit ovoid, 7-10 by 5-6mm.

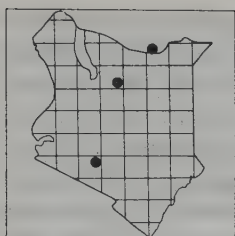
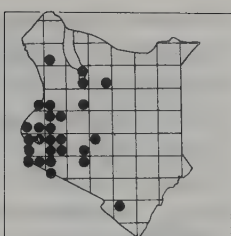
K5; collected twice in Kakamega forest.

3. *Teclea hanangensis* Kokwaro

RARE

Shrub or tree 8-20m; bark grey. Leaves 1-3-foliate, the leaflets elliptic, base cuneate, apex obtuse or acute, 4-10 by 2-4cm, glabrous or nearly so. Flowers yellow, in terminal and axillary panicles to 17cm long; petals 2-4mm long. Fruit obliquely ovoid, 15-18 by 5-8mm.

- var. *hanangensis*: K17; found at Moyale, Ma-

*Teclea hanangensis**Teclea nobilis*

takweni Hill, Kilibasi and possibly at Marsabit.

Leaflets trifoliolate. Dry rocky bushland.

- var. *unifoliolata* Kokwaro: K4; found at Karura forest, Nairobi, and possibly in Aberdares (K.Schmitt, pers. comm.)

Leaflets 1-foliolate in mature trees. Dry forest.

Mike (BOR).

4. *Teclea nobilis* Del.

Tree 4-18m, evergreen; less often a shrub; bark grey-brown, finely grooved. Leaves (1-)3-foliolate; leaflets elliptic, base cuneate, apex obtuse to acuminate, 5-15 by 1.5-4.5cm, glabrous or nearly so. Flowers yellow-green, in terminal or axillary panicles 4-15cm long; petals 3.5-4mm long. Fruit yellow, orange or red, round or ellipsoid, 6-8 by 5-6mm.

K1234567; 1050-2550m; II-IV, VI-XII

Evergreen forest, thickets on rocky hills, riverine, wooded grassland. May be common in dry forest.

Munderendu (STAND, KIK), Kuriot (KIP, NDO), Kumutare, Mutaro (LUH), Midat, Odar (LUO), Ol-Gelai (MAA), Koorea, Lugumwa (MAR), Kurion (PKT), Ekodek (TUR). The fruit is edible; the wood is used to make bows and walking sticks, and a leaf decoction is used against pneumonia by the Maasai.

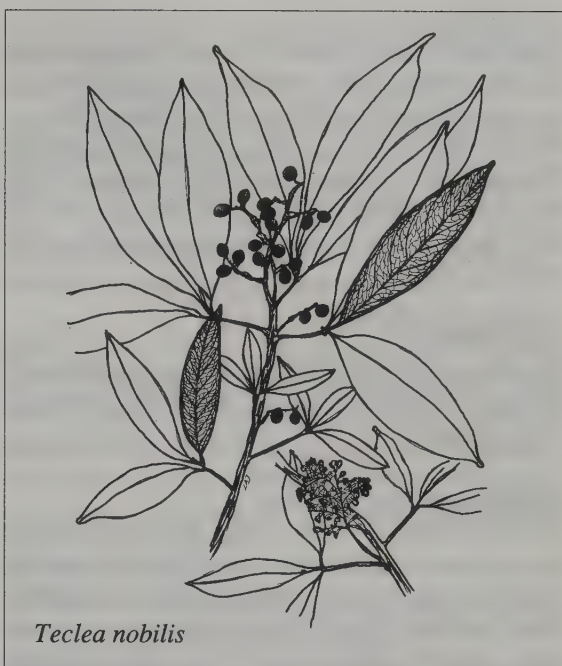
5. *Teclea simplicifolia* (Engl.) Verdoorn

Shrub or tree 2-9m, evergreen; bark smooth, grey. Leaves 1-foliolate, with a jointed petiole; leaflet elliptic or (ob-)ovate, base cuneate, apex rounded to acuminate, 3-15 by 1.5-6cm, glabrous. Flowers yellow-green, in terminal or axillary panicles 1-5cm long; petals 2.5-3.5mm long. Fruit orange or red, round or ellipsoid, 6-10mm across.

K134567; 850-2300m; I-XII.

Dry forest, riverine thicket or woodland, evergreen rocky bushland; may be very common.

Munderendu (STAND, KIK), Mike (BOR), Muchimi wa tsakani (DIG), Kuriot (KIP, NDO, MAR), Muretu

*Teclea nobilis*

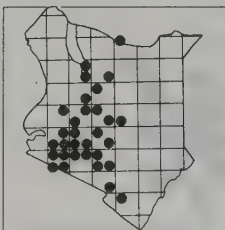
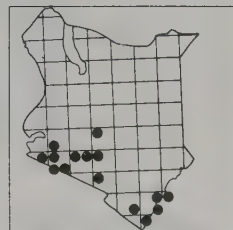
(MER), Kurionde (TUG), Edapalakuyen (TUR), Olgelai (MAA), Lgelai/Ngoiei orok (SAM). Wood is used for roof beams, walking sticks, and bows; a leaf/branch decoction is employed against pleurisy by the Maasai.

6. *Teclea trichocarpa* (Engl.) Engl.

[*T. villosa* M.R.F. Taylor]

Shrub or tree 1.5-10.5m; bark smooth, grey. Leaves 3-foliolate; leaflets elliptic to slightly obovate, base cuneate (in the laterals often slightly asymmetrical), apex obtuse or acute (emarginate), 3-9 by 1.5-3cm, pubescent at least on the midrib beneath. Flowers yellow-green, in dense axillary racemes to 2.5cm long; petals 2-5mm long. Fruit red, ellipsoid, 10-14 by 6-8mm, wrinkled.

K4567; 1-450m; (coast) and 1350-2200m; I, III-V,

*Teclea simplicifolia**Teclea trichocarpa*

VII, IX-XII

Dry forest (may be common), riverine forest; common along the Mara River. On the coast also in *Brachystegia* woodland, or in thickets on the Shimba Hills. Munderendu (STAND, KIK), Mti-Chuma, Ndumi-Mwitu (SWA), Kidimu-Tsaka (DIG), Mukoro (GIR), Kuriot (KIP), Oltoriroi (MAA). Giriama put leaves in their dogs' noses before hunting to improve their scenting powers.

7. TODDALIA

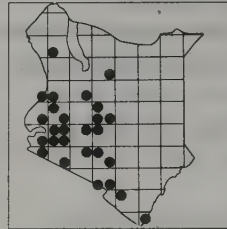
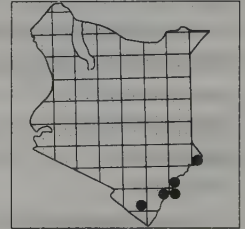
Branches with hooked prickles. Leaves alternate, 3-foliolate. Flowers unisexual, 5-merous, stamens 5. Fruit a drupe.

Toddalia asiatica (L.) Lam.

Climbing shrub or liana 2-15m; in lianas the lower stem is beset with spines on corky pyramids; branches and often undersides of leaves with hooked prickles to 5mm. Leaflets elliptic or slightly obovate, base cuneate, apex obtusely acuminate, 3-8 by 1-3cm, glabrous; margins sometimes crenulate. Flowers greenish-yellow, in axillary and terminal panicles; petals 2-3mm long. Fruit orange, round, 7-10mm.

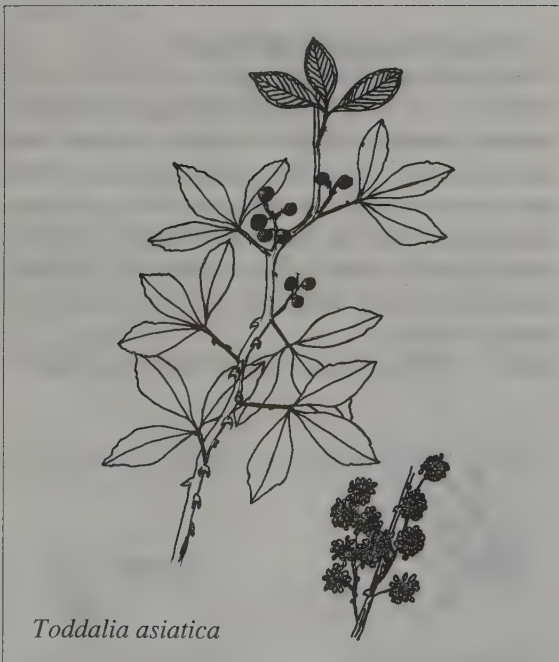
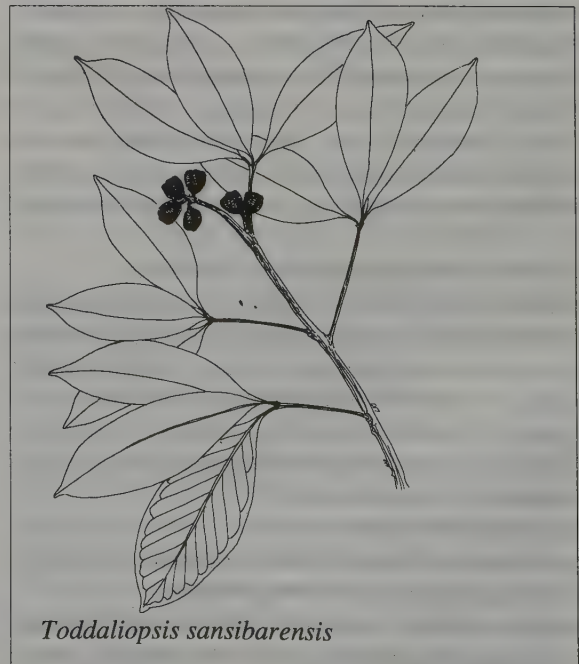
K1234567; 1-450m (coast) and 1200-3000m; I-VII, IX-XII (V)

(Riverine) forest margins or secondary regrowth; in the Mara and Shimba Hills also in grassland thickets. Kikombe-Cha-Chui (DIG), Maluia (KAM), Mururue (KIK), Chepindorwet (KIP), Luabare (LUH), Ajua, Nyaluet-Kwach (LUO), Ole-Pormunyo (MAA), Kipkeres, Kipkutai (MAR), Mukongura (MER), Usuet (NAN), Wömboriot (NDO), Kikucha (SAN), Ketemwe (TUG), Etokebengu (TUR), Llaramunyo (SAM). The fruit is chewed as a cough remedy; a root decoction is employed as an emetic and purgative by the Maasai.

*Toddalia asiatica**Toddaliopsis sansibarensis*

8. TODDALIOPSIS

Leaves alternate, 3-foliolate. Flowers unisexual, in axillary or terminal panicles; sepals and petals 4, stamens 8. Fruit a woody nut.

*Toddalia asiatica**Toddaliopsis sansibarensis*

Toddaliopsis sansibarensis (Engl.) Engl.

Shrub 1.5-4m, evergreen. Leaflets shiny, elliptic or somewhat obovate, base cuneate, apex obtuse or bluntly acuminate, 4-12 by 1.5-5cm, glabrous. Flowers white, in short panicles; petals 2-2.5mm long. Fruit brown, 4-angled, warty, 10-14mm across.

K7; 1-500m; I *

Brachystegia woodland, dense bushland, coastal thicket, *Cynometra* forest.

Mkuro (GIR).

9. VEPRIS

Leaves alternate (opposite in *V. glandulosa*), 1-3-foliolate. Flowers 4-merous, in axillary inflorescences; stamens 8. Fruit a drupe, 2-4 seeded.

1. Leaves 1-foliolate 6

* Leaves 3-foliolate 2

2. Leaflets sessile 3

* Leaflets stalked; forest species

2. *V. glandulosa*

3. Petiole slightly winged 3. *V. glomerata*

* Petiole not winged 4

4. Leaflets 10-24 by 4-11cm 6. *V. samburuensis*

* Leaflets 1.5-12 by 0.8-3.3cm 5

5. Coastal species; inflorescence a terminal panicle

4. *V. lanceolata*

* Inland species; inflorescence an axillary raceme

7. *V. ugwenensis*

6. Leaves 3.5-12cm long; fruit round

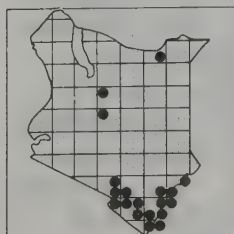
1. *V. eugeniifolia*

* Leaves 14-29cm long; fruit ovoid or ellipsoid

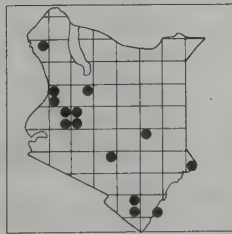
5. *V. ngamensis*

1. *Vepris eugeniifolia* (Engl.) Verdoorn

Shrub or tree 1.5-12m; bark grey, smooth or longitudinally fissured. Leaves 1-foliolate, the petiole swollen at base and apex; leaflet elliptic, base cuneate, apex obtuse or bluntly acuminate, 3.5-12 by 2-5.5cm, glabrous. Flowers yellow-green, in axillary racemes



Vepris eugeniifolia



Vepris glomerata

to 5cm long; petals 1-2.5mm long. Fruit orange-red, round, 6-10mm.

K147; 1-1400m; III-IV, VI-VII, X-XI *

Inland in bush- or woodland on rocky hillsides or lava; on the coast nearly always in forest or thicket.

Hades (SOM), Mwaowa-Wakulima (SWA, GIR).

2. *Vepris glandulosa* (Hayle & Leakey) Kokwaro
(*Tecleopsis glandulosa* Hayle & Leakey)**ENDANGERED**

Shrub or tree 4.5-7m; bark smooth, grey. Leaves opposite or alternate, 3-foliolate; leaflets elliptic, base cuneate, apex bluntly acuminate, margin entire or crenulate, 8-22 by 3-6.5cm, glabrous but for the midrib. Flowers greenish-yellow, in axillary and terminal panicles to 15cm; petals 4-5, 1.8-3mm long. Fruit red, bilobed, 12-16mm long.

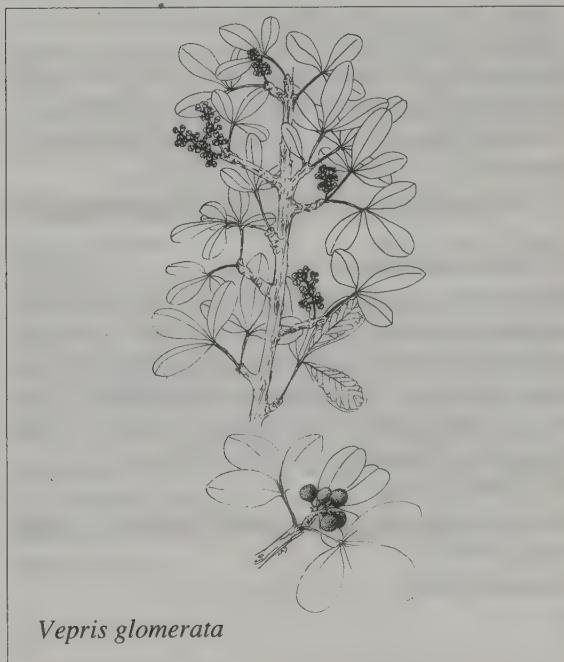
K4; 2000-2100m; I *

Dry forest; known from Muguga, and recently found at Ragathi (*Gachathi* 6/88) and Limuru.

Munderendu-Itu (KIK). The wood is used for tool handles. Shade-leaves are much larger than those exposed to the sun.

3. *Vepris glomerata* (F. Hoffm.) Engl.

[*Teclea pilosa* (Engl.) Verdoorn, *Vepris* sp. nov. of KTS]



Vepris glomerata

Shrub or tree 1-7m; bark grey, smooth. Leaves 3-foliolate, with the petiole slightly winged; leaflets elliptic or slightly obovate, base cuneate, apex rounded to retuse, 1.5-8 by 1-3cm, glabrous (var. *glabra* Kokwaro) to densely pubescent; margins sometimes obscurely crenulate. Flowers yellow-green, in terminal glomerate panicles to 6cm long; petals 2-3mm long. Fruit orange, more or less round, 7-11mm. K12347; 1-1400m; I-V, VII, XII *

Dry bushland, often on rocky hills, or riverine woodland.

Karo (BOR), Manampelion (PKT), Chepkorion (TUG), Ekuri, Emalitenyit (TUR). Used as mswaki; the wood is used to make bows and arrows; a root decoction is emetic, and is employed against malaria and headache by the Tugen; the fruit is edible.

4. *Vepris lanceolata* (Lam.) G. Don

Shrub or tree 2-6m, evergreen. Leaves 3-foliolate, smelling strongly of aniseed; leaflets (narrowly) elliptic, base cuneate, apex acute or obtuse, 5-12 by 1.5-3.3cm, glabrous. Flowers in terminal panicles to 8cm long; petals 1-2mm long. Fruit black, 4-lobed, 4-6mm across.

K7; 1-100m; -*

Collected in thicket near the beach at Ramisi, at Gongoni, Buda and 10km SSW of Kwale.

5. *Vepris ngamensis* Verdoorn

Shrub with 1-foliolate leaves; petiole slender; leaflet (broadly) elliptic, base cuneate, apex acuminate, 14-29 by 6-8.5cm, glabrous. Flowers in axillary racemes. Fruit ovoid or ellipsoid, 11-13 x 6-7mm.

K7; Marenji forest, 80-140m (Luke & Robertson 1755)

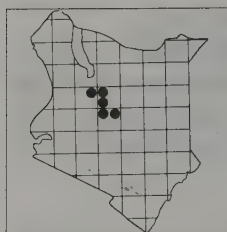
6. *Vepris samburuensis* Kokwaro RARE

Shrub or tree 3-7m. Leaves 3-foliolate; leaflets elliptic to slightly obovate, base obtuse to almost auriculate and very unequal in the laterals, apex obtuse to acuminate, 10-24 by 4-11cm, glabrous or pubescent. Flowers in terminal panicles 6-11cm long; petals 2-4mm long. Fruit 2-4-lobed, 10-15 by 8-15mm.

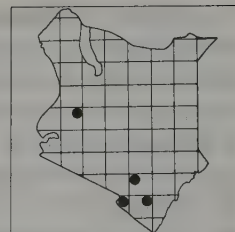
K1; 1000-1450m; -*

Riverine forest or semi-evergreen bushland on steep rocky slopes.

Ltungai (SAM).



Vepris samburuensis



Vepris uguenensis

7. *Vepris uguenensis* Engl.

Shrub 3-4m. Leaves 3-foliolate; leaflets narrowly elliptic, base cuneate, apex obtuse or acute (retuse), 1.5-12 by 0.8-2cm, glabrous but for the pubescent midrib. Flowers greenish-cream, in short axillary racemes; petals 2-4mm long. Fruit orange, round, 8-11mm.

K37; 600-1300m; IX *

Rocky bush- or woodland.

Chemchiri (PKT)

Note. Q. Luke feels the K3 specimens are a different species.

10. ZANTHOXYLUM

Trunk usually with protuberances; branches spiny. Leaves alternate, aromatic, imparipinnate, usually with rachis and leaflets' midribs spiny. Flowers usually dioecious, 4-5-merous. Fruit a follicle.

1. Branches with recurved spines usually over 1cm long; apex of leaflets obtuse or acute; inflorescence usually below the leaves; species of bushland, wooded grassland, or coastal dry forest **1. *Z. chalybeum***
- * Branches with spines either recurved and smaller, or straight/upcurved; apex of leaflets obtuse to acuminate; inflorescence among the leaves; forest/thicket/secondary bushland species **2**
2. Coastal species, found below 500m **3**
- * Inland species, found above 1200m **4**
3. Leaflets 7-9; spines straight or recurved; fruit single **3. *Z. holtzianum***
- * Leaflets 11-23; spines straight or upturned; fruit of 2 follicles (sometimes 1 aborting). Mrima Hill **5. *Z. paracanthum***
4. Margin of leaflets toothed (Kakamega forest species) **6. *Z. rubescens***
- * Margin of leaflets entire or with tiny teeth **5**
5. Leaflets 4-10cm wide, with very asymmetric

- base; flowers 5-merous **2. *Z. gillettii***
 * Leaflets 1.5-3.5cm wide, with slightly asym-
 metric base; flowers 4-merous **6**
6. Leaf-rachis and inflorescence hairy; Kakamega
 forest **4. *Z. mildbraedii***
 * Leaf-rachis and inflorescence glabrous;
 widespread **7. *Z. usambarensis***

1. *Zanthoxylum chalybeum* Engl. var. *chalybeum*

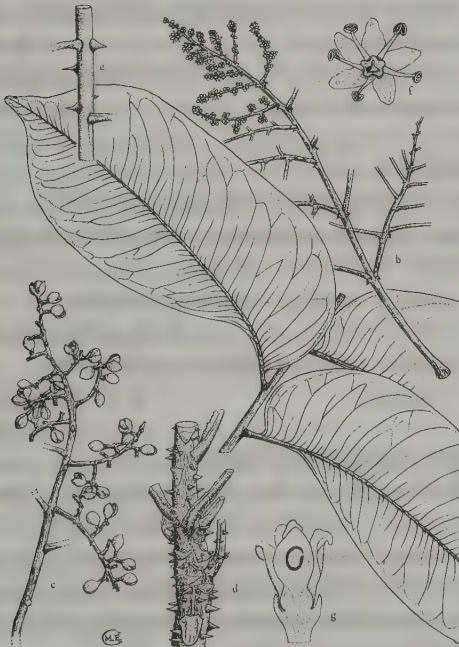
[*Fagara chalybea* (Engl.) Engl.]

Shrub or tree 1.5-10m (more?), evergreen; trunk furrowed, with corky knobs or ridges crowned with spines; branches with single, black or reddish, recurved spines to 2cm. Leaves with (3)5-11 leaflets, these 2-10 by 2-5cm, glabrous or pubescent, margins entire or crenulate. Flowers yellow-green, in racemes or little-branched panicles to 10cm, usually borne below the leaves; petals about 2.5mm long. Fruit pink, obliquely ellipsoid, 5-8mm long, with a shiny black seed.

K123457; 1-1800m; I, III-IV, IX, XI *

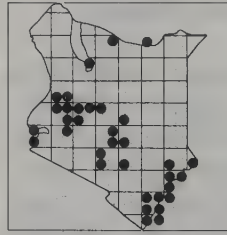
Semi-evergreen or dry bushland, often in rocky sites; wooded grassland; on the coast also in dry forest and closed thicket near the sea.

Mjafari (SWA), Gadah (BOR), Gaddaa (GAB), Mdungu (GIR), Mukenea (KAM), Roko (LUO),

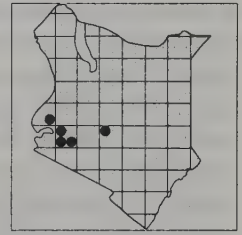


Fagara macrophylla Engl.

a: part of a leaf showing 3 leaflets ($\times \frac{1}{2}$); b: δ inflorescence ($\times \frac{1}{2}$); c: mature \varnothing inflorescence ($\times \frac{1}{2}$); d: portion of branchlet showing spines ($\times \frac{1}{2}$); e: part of leaf rachis ($\times \frac{1}{2}$); f: δ flower ($\times 5$); g: 1: δ ; 2: \varnothing flower ($\times 10$).
 a & g: from Eggleing 4263; b & f: from Gardner 1176; c: from Eggleing 1454; d: from Battiscombe 1302; e: from Bally 1444.



Zanthoxylum chalybeum



Zanthoxylum gillettii

Songoiywa, Songorurwa (MAR), Songowo (PKT), Loisugi (SAM), Koktin, Kokin (TURG). A decoction of the bark is used as an emetic, against malaria (by Pokot) and sore throat; a bark infusion is given to sick camels (by, among others, the Samburu).

2. *Zanthoxylum gillettii* (De Wild.) Waterm.

[*Fagara macrophylla* (Oliv.) Engl.]

Tree 10-27m, deciduous; trunk smooth, grey, with spines on bosses; branches with straight or slightly recurved spines 2-8mm long. Leaves with 13-27 leaflets, these 8-30 by 4-10cm (largest in young trees), margins entire or crenulate, glabrous. Flowers cream or yellow, in terminal and axillary panicles 20-34cm long; petals 1-2.5mm long. Fruit reddish, almost round, 4-6mm across.

K456; 1500-2300m; II, V, VIII-IX *

Moist forest.

African Satinwood (STAND), Muchagatha (KIK), Sagawoita (KIP, NAN.), Shikhoma (LUH), Kikomiti (NDO). The wood is scented, hard, tough, but not durable in the ground. Used for carpentry and boat-building. Ndorobo use bark in cough medicine.

3. *Zanthoxylum holtzianum* (Engl.) Waterm.

ssp. *holtzianum*

Map on next page

(*Fagara holtzianum* Engl.)

Shrub or tree 4-15m; sometimes described as scrambling; bark grey, with corky bosses; branches with straight or recurved spines 2-7mm long. Leaves with 7-9 leaflets, these 7-15 by 3-6.5cm, glabrous. Flowers white, in terminal panicles 8-25cm long; petals 1.5-3mm long. Fruit reddish to bright red, round, 4-6mm. K7; 1-500m; I, IV-VI *

Moist or dry forest or closed thicket near the sea.

Mjafari (SWA).

4. *Zanthoxylum mildbraedii* (Engl.) Waterm.*(Fagara mildbraedii* Engl.)

Tree 12-30m; bark yellowish brown, smooth but for thorny bosses with upcurved spines 1-3mm long. Leaves with 11-23 leaflets, these 3-10.5 by 1.5-3.5cm, glabrous but for the veins, obscurely crenulate. Flowers white, in terminal and axillary panicles 5-11cm; petals 1.6-2.2mm long. Fruit of paired, obliquely ellipsoid follicles, each 8-10mm long.

K5; collected 4 times in Kakamega Forest; V * Simbari (LUH).

5. *Zanthoxylum paracanthum* (Mildbr.) Kokwaro

Climbing shrub or tree to at least 10m; branches with straight or upturned spines 3-11mm long. Leaves with 11-23 leaflets, these 5-13 by 2-3.5cm, crenate, glabrous. Flowers (imperfectly known) greenish-white, in terminal panicles to 17cm. Fruit of paired obliquely ellipsoid follicles (but frequently one aborts), 8-10mm long.

K7; in forest on Mrima Hill and at Miongoni; - *

6. *Zanthoxylum rubescens* Hook.f.*(Fagara leprieurii* sensu KTS)

Tree to 8m (but Moon K 589 cited in FTEA, says average diameter 50cm); bark with corky bosses; branches with straight or recurved spines 4-10mm long. Leaves with 7-19 leaflets, these 5-29 by 2.5-15cm, dentate, glabrous (occasionally hairy on veins). Flowers cream, in terminal panicles 20-40cm long; petals 1.2-2mm long. Fruit reddish, (almost) round, 5-7mm.

K5; collected 4 times in Kakamega Forest; - *

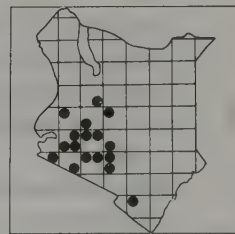
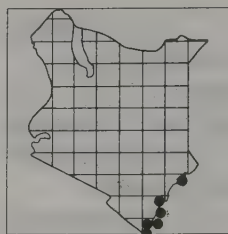
Shugoma, Shigulutsu (LUH). Wood tough but perishable.

7. *Zanthoxylum usambarens* (Engl.) Kokwaro*(Fagara usambarensis* Engl.)

Tree 2.5-15m; bark furrowed, brown, with corky bosses; branches with straight or slightly upcurved spines 6-12mm long. Leaves with 5-17 leaflets, these 2-5 by 1.5-3cm, crenate, glabrous. Flowers white or yellow, in terminal panicles 10-15cm long; petals 2-4.5mm long. Fruit of paired reddish round follicles, 8-10mm.

K134567; 1350-2600m; II-V, VII, IX-X (IX-X)

Dry forest or its remnants, such as clump thickets or secondary bushland.



Zanthoxylum holtzianum *Zanthoxylum usambarens*

Muguchwa (STAND, KIK), Muvu, Mulasi (KAM), Sagawaita (KIP), Ol-Oisugi (MAA), Loisugi (SAM). The wood is used in housebuilding, for furniture, and to make bows; a bark decoction serves as an emetic, employed against malaria by Kipsigis.

195. SIMAROUBACEAE

Leaves alternate, without stipules. Inflorescence a panicle. Calyx 2-5-lobed, petals 4-5, stamens 4-10. Fruit a berry or of separate mericarps.

- | | |
|---|-----------------------------|
| 1. Leaves simple; seashore species | 5. <i>Suriana</i> |
| * Leaves imparipinnate; inland species | 2 |
| 2. Plant spiny; leaf rachis winged | 2. <i>Harrisonia</i> |
| * Plant unarmed; leaf rachis not winged | 3 |
| 3. Leaves 1-2.5 by 0.9-2cm; dry bushland | 3. <i>Kirkia</i> |
| * Leaves 4-16 by 2-9cm; forest | 4 |
| 4. Inland species, found above 700m; petals 4, stamens 4 | 1. <i>Brucea</i> |
| * Coastal species, found below 500m; petals 5, stamens 10 | 4. <i>Quassia</i> |

1. BRUCEA

Leaves imparipinnate, with opposite leaflets. Inflorescence axillary, seemingly spicate; sepals 4, petals 4, stamens 4. Fruit of 1-4 drupaceous mericarps.

- | | |
|--|-------------------------------------|
| 1. Leaflets velvety, with entire margins | 1. <i>B. antidysenterica</i> |
| * Leaflets (almost) glabrous, with toothed margins | 2. <i>B. macrocarpa</i> |

1. *Brucea antidysenterica* Mill.

Shrub or tree 1-9m; bark light brown-grey, smooth. Leaves with 7-13 leaflets, these with asymmetric base, apex subacute, margins more or less entire, 4-16 by 2-8cm, velvety. Flowers greenish, in 12-35cm long spikes; petals about 2mm long. Fruit red, ovoid, 10-12 by 6-7mm.

K12347; 1600-2450m; I, III-IV, VII-VIII *



Dry or moist forest or forest remnants.

Kikame, Mukame (KAM), Mutingombe (KIK), Songoroi (SAM). A root and leaf infusion is used against dysentery.

2. *Brucea macrocarpa* Stannard

(In my atlas of rare trees called *B. tenuifolia* Engl. ssp. *keniensis* ined.)

VULNERABLE

Shrub or tree 1-4.5m; bark reddish-brown. Leaflets 7-11, base asymmetrically rounded, apex shortly acuminate, margins toothed, 8-15 by 3.5-9cm, glabrous or nearly so. Flowers greenish, in 8-55cm long spikes; petals about 1.5mm long. Fruit red, ovoid, 14-18 by 9-12mm.

K4; 750-1750m; IX, XII *

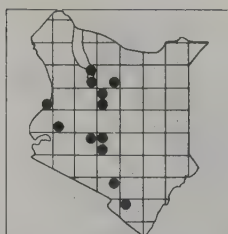
Riverine or swamp forest. Endemic: Kamiti, Thika falls, Rojwero Swamp, Kiambu.

2. HARRISONIA

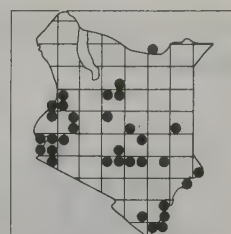
Leaves imparipinnate, with winged rachis. Sepals 4-5, petals 4-5, stamens 8-10. Fruit a lobed berry.

Harrisonia abyssinica Oliv.

Shrub or tree (sometimes climbing) 2-6(12?)m, ever-green; bark with conical corky bosses to 2cm, rarely unarmed; branches with straight or recurved spines to



Brucea antidysenterica



Harrisonia abyssinica

8mm, usually paired and axillary. Leaflets 7-15, base asymmetrically cuneate, apex subacute or rounded, margins more or less crenate, 0.7-4 by 0.5-2cm, pubescent or glabrous. Flowers cream or yellow, in 5-15cm long panicles; petals 4-5mm long. Fruit red, globose or lobed, 8-11mm across.

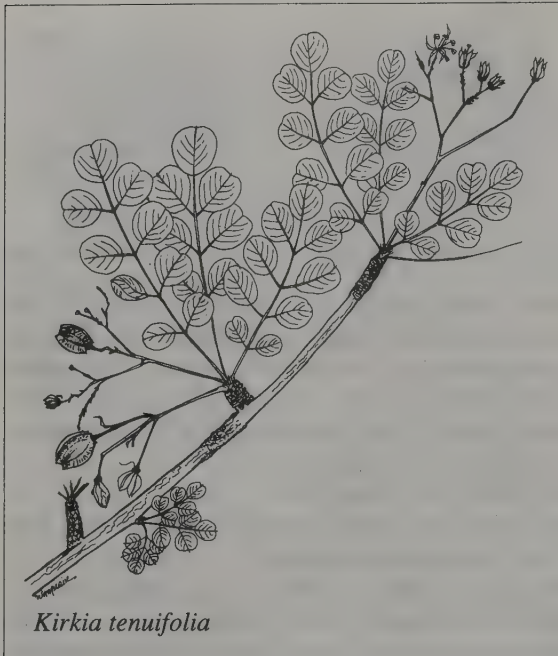
K1234567; 1-1650m; I-XII.

Dry bushland, wooded grassland, or riverine; on the coast also in forest margins.

Msamburini, Mkidori (SWA), Raga (BOR), Sabuni (BON), Kidori (DIG), Mutagataga (EMB), Mkindhunga (GIR), Gora (ILW, ORM), Mkiliulu (KAM), Pedo (LUO), Kapkerelwa (MAR), Gao (PKM), Mukurkona (PKT), Lasaramai, Muruguti (SAM), Eddih-chabel (SOM), Ekalale (TUR).

The roots are employed against VD by the Samburu and against diarrhoea by the Kamba; the fruits are reported to be edible.





3. KIRKIA

Leaves imparipinnate, with opposite leaflets. Inflorescences axillary; sepals 4, petals 4, stamens 4. Fruit 4-angled, resembling that of *Combretum*.

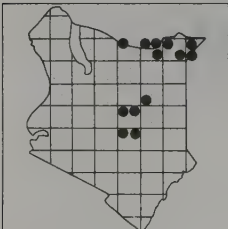
Kirkia tenuifolia Engl.

Shrub or tree 1.5-8m; bark smooth or somewhat fissured, dark grey; roots with tubers (fide Gillett). Leaves on shortshoots. Leaflets 5-9, base cuneate or rounded, apex rounded or emarginate, margins entire or nearly so, 1-2.5 by 0.9-2cm, glabrous. Flowers greenish cream, in 3-6.5cm long panicles; petals 3-5mm long. Fruit pinkish, elliptic, 10-12 by 6-8mm, 4-angled.

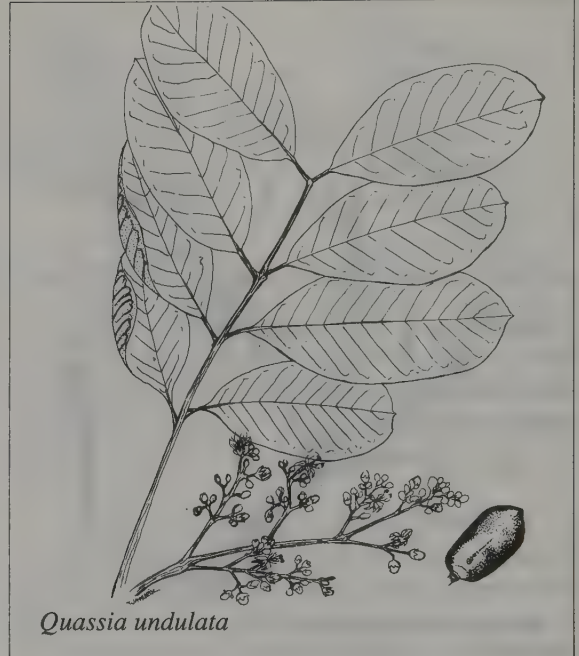
K147; 200-800m; III, V, X-XI * (V)

Acacia-Commiphora bushland; locally dominant near Dandu.

Biss duga (BOR), Dofarchot (SOM). The bark is chewed against thirst.



Kirkia tenuifolia



4. QUASSIA

Leaves imparipinnate, with opposite leaflets. Inflorescence axillary, sepals 3-5, petals 5, stamens 10. Fruit fleshy, 1 seeded.

Quassia undulata (Guill. & Perr.) D. Dietr. (*Odyndea zimmermannii* Engl.)

Tree 18-35m with long clean bole; bark smooth, grey. Leaflets 7-11, base cuneate, apex rounded or shortly acuminate, margin entire, 6-16 by 4-7cm, glabrous. Flowers green, in 8-17cm long panicles; petals about 3mm long. Fruit blue-black, ovoid, about 35 by 22mm.

K7; 50-400m; I *

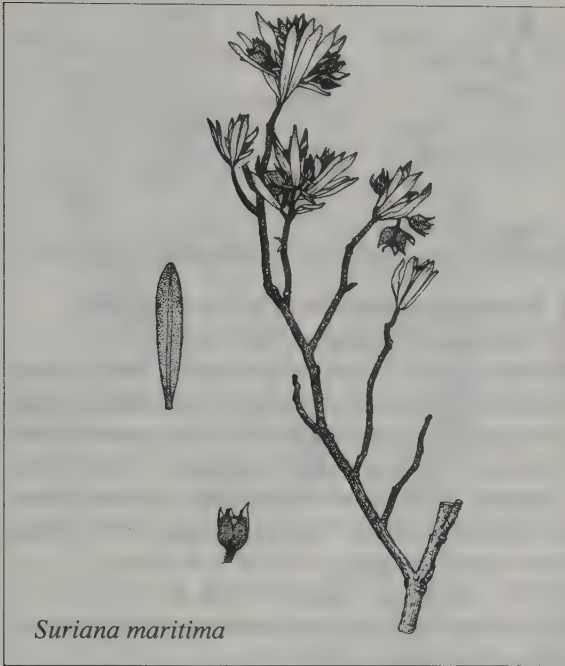
In Kenya only known from Makadara forest, Shimba Hills, and Buda.

5. SURIANA

Leaves simple. Flowers in axillary panicles, or solitary. Sepals 5, petals 5, stamens 10. Fruit dry, 1-seeded.

Suriana maritima L.

Shrub 1-2m. Leaves linear to narrowly elliptic, base cuneate, apex obtuse or subacute, margin entire, 1-4 by 0.3-0.4cm, pubescent. Flowers yellow, in short (1-



4cm) panicles; petals about 7mm long. Fruit blackish purple, obovoid, 3-4mm across.

K7; near highwater mark; I *

On coral or sandy soils, collected at Mombasa and near Kilifi.

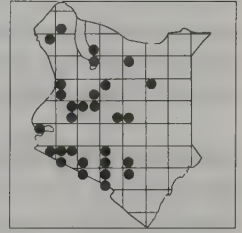
195A. BALANITACEAE

BALANITES

Usually with simple or forked spines. Leaves alternate, 2-foliolate. Sepals 4-5, petals 4-5, stamens 8-10. Fruit a 1-seeded drupe.

1. Spines bearing leaves and flowers/fruit (or scars of these) 2
- * Spines not bearing leaves and flowers/fruit; flowering branches often without spines 4
2. Petiole usually less than 2mm long; flowers in fascicles 3
- * Petiole usually over 2mm long; flowers in stalked cymes 3. *B. pedicellaris*
3. Spines rarely with small side-branches; ovary glabrous 2. *B. glabra*
- * Spines often with small side-branches; ovary hairy 4. *B. rotundifolia*
4. Inland species, above 250m; petals glabrous inside 1. *B. aegyptiaca*

- * Coastal species, below 50m; petals hairy inside
5. *B. wilsoniana*



Balanites aegyptiaca

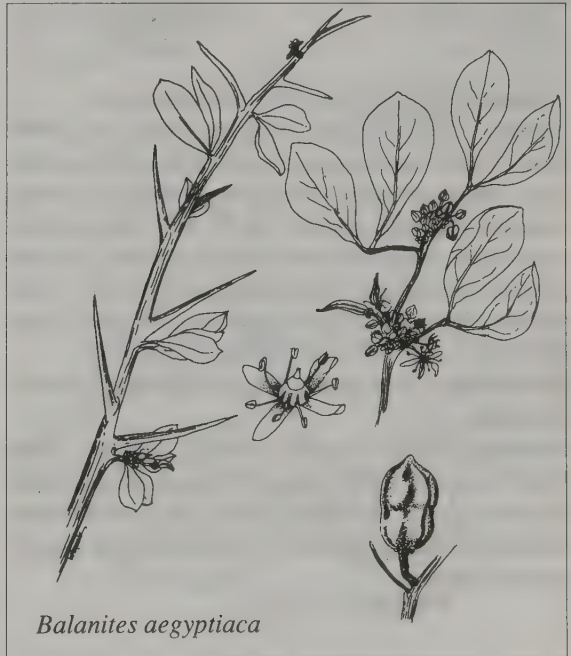
1. *Balanites aegyptiaca* (L.) Del.

Tree 3-12(15)m, evergreen; bark smooth and green, or fissured and grey; spines green, simple, to 8cm long. Leaflets elliptic-obovate, 2.5-6 by 1.5-4cm, puberulous but becoming glabrous with age. Flowers yellow-green, in few-flowered fascicles; petals 7-10mm long. Fruit red, ellipsoid, 28-45 by 12-25mm.

K123456; 250-2000m; I-III, V, VIII, XI-XII.

Dry bushland, bushed grassland, wooded grassland or woodland; also riverine or along luggas.

Desert Date (STAND), Baddan (BOR), Baddano (GAB), Kilului, Mulului (KAM), Ngoswet (KIP), Othoo (LUO), Olngoswa (MAA), Ngoswa, Tuyunwa (MAR), Tuyunwo (PKT), Lowvai (SAM), Ngonswo



(TUG), Eroronyit (TUR). The fruit is edible, and yields an edible oil; an infusion of the roots is employed as an emetic against malaria; the gum is used to stick arrowheads and spearheads on their shafts. The wood is durable and insect-resistant, and is used for tool-handles. The emulsion of the fruit is lethal to *Bilharzia* hosts, and to some stages of *Bilharzia* itself.

2. *Balanites glabra* Mildbr. & Schlecht.

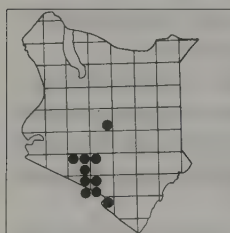
Shrub or tree 3-10m; spines to 15cm long. Leaves fleshy, the leaflets obovate, base cuneate, apex rounded or subacute, 2-5 by 1-2.5cm, glabrous. Flowers (yellow-) green, in axillary fascicles; petals 5-6mm long. Fruit orange, ellipsoid, 25-28 by 12-18mm.

K13467; 900-1700m; I, III, VII-VIII, X-XII.

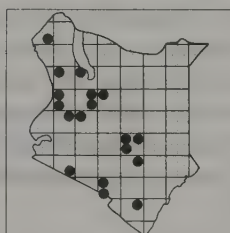
Dry bushland (often on lava/rocks), scattered tree grassland, bushed grassland.

Kilului (KAM), Ol-Ngaswa (MAA), Elamaich (TUR).

The fruit is edible.



Balanites glabra



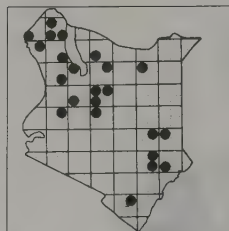
Balanites pedicellaris

3. *Balanites pedicellaris* Mildbr. & Schlecht.

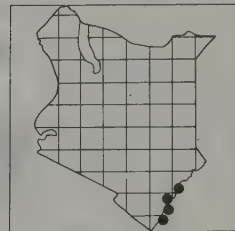
Shrub or tree 1-9m with rounded crown and fluted trunk; bark smooth or rough and corky, light to dark grey. Spines to 12cm long. Leaves fleshy, obovate, base cuneate, apex rounded, 10-30 by 7-25cm, pubescent when young but becoming glabrous. Flowers greenish, in short cymes; petals 5-8mm long. Fruit yellow, ellipsoid or almost round, 18-30 by 18-20mm. K123467; 1-1300(1700)m; I, III, VII-IX, XII *

Dry bushland, often near luggas; also in bushed/wooded grassland.

Mubadana (ILW), Baddan (ORM), Lomion, Loma (PKT), Kalum (REN), Sarai (SAM), Kullan (SOM), Kiwowa (TAI), Elamach (TUR). The fruit is edible, and an infusion of the roots is employed as an emetic by the Turkana.



Balanites rotundifolia



Balanites wilsoniana

4. *Balanites rotundifolia* (Van Tiegh.) Blatter

(*B. orbicularis* Sprague, *B. gillettii* Cuf.)

Shrub or tree 0.5-5(10)m; bark grey, corky, rough; spines to 8cm long. Leaves fleshy, the leaflets obovate to almost round, base cuneate or rounded, apex rounded to almost truncate and often apiculate, 1-3.5 by 1-3cm, (minutely) puberulous or pubescent. Flowers greenish, in few-flowered fascicles; petals 5-7mm long. Fruit orange, ellipsoid, 2-3.5 by 1.8-2.8cm.

K1237; 50-1350m; II-III, VII-VIII, XI *

Semi-desert scrub, dry bushland or -bushes grassland; often along luggas or near rivers.

Baddan (BOR, ORM), Mubadana (ILW), Lomion (PKT), Daddan (PKM), Kulum (REN), Sarei (SAM), Kullan (SOM), Tirikikwa (TUG), Ebei (TUR). The fruit is edible; the wood is used for small implements and spears; the gum is used to stick spearheads unto shafts; the leaves are used to treat wounds.

5. *Balanites wilsoniana* Dawe & Sprague

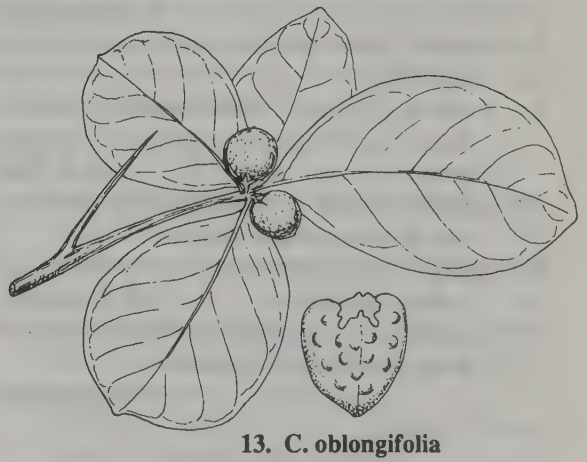
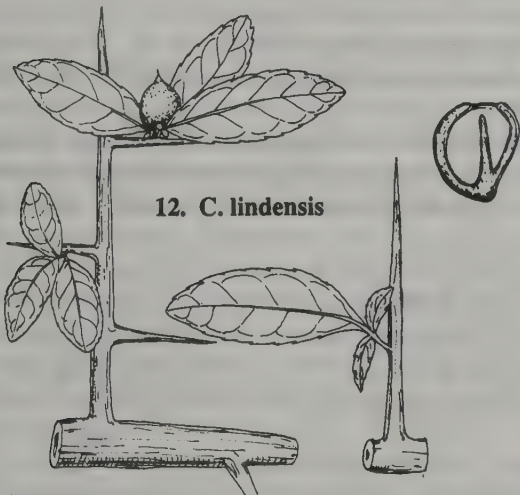
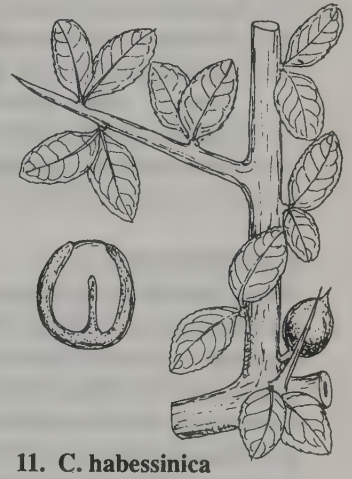
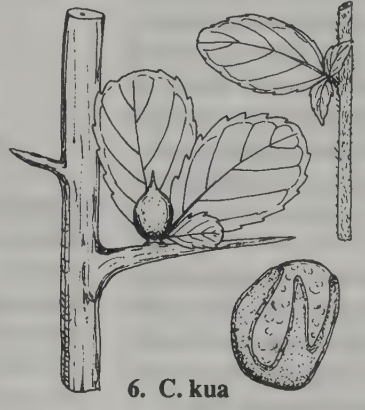
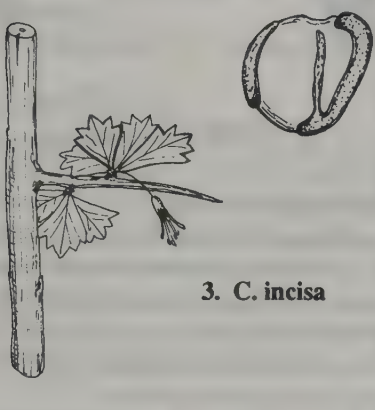
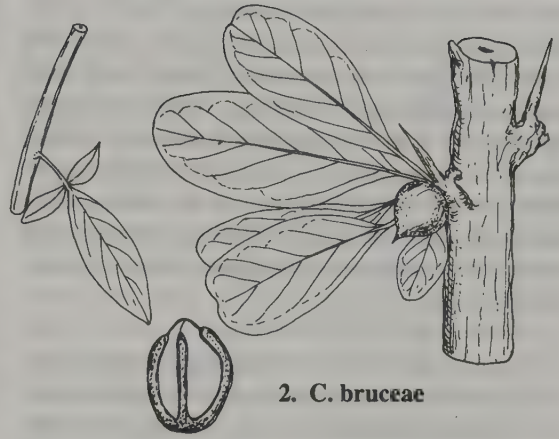
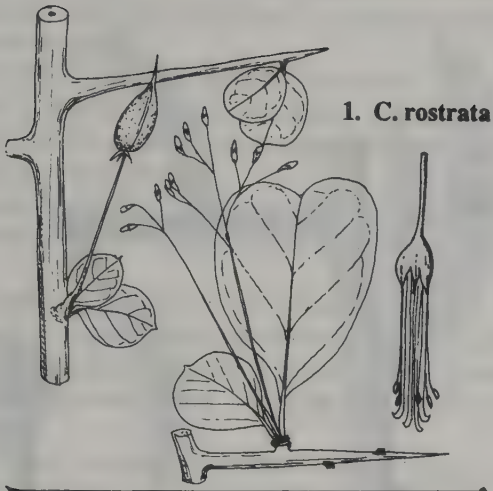
VULNERABLE

Tree 6-12m, evergreen; bark (pale) grey, smooth or rough, angular; spines to 15cm, but often absent from flowering branches. Leaflets (broadly) ovate, base cuneate/rounded, apex shortly acuminate, 5-10 by 3-3.5cm, glabrous. Flowers greenish yellow, in dense fascicles or cymes; petals 6-7mm long. Fruits not seen, usually over 4cm long.

K7; 1-50m; I, III *

Evergreen forest or coastal thicket; may be locally common.

Mkonga (SWA), Kiling (BON), Ndimu-Mwitu (GIR), Badan (SAN). The wood is used in house-building.



196. BURSERACEAE

(by J. B. Gillett)

Trees or shrubs often secreting resin or oil, but without translucent glands in the leaves. Outer bark often translucent and papery, peeling in flakes or scrolls, exposing the green or blueish underbark. Leaves spirally arranged, usually 3-foliolate or odd-pinnate. Flowers small, regular, solitary or in inflorescences. Calyx cupular, usually 4- or 5-lobed; petals 4-5, stamens usually twice as many as petals. Ovary superior, 2-3 (5)-locular.

1. Fruit a dry (2)3(4-5)valved pseudocapsule, releasing 1-seeded nutlets on dehiscence; calyx-lobes and petals 5, stamens 10; leaves pinnate; true spines absent **1. *Boswellia***

- * Fruit a dehiscent drupe, splitting into 2(-4) valves disclosing a 1(-2)seeded stone which is usually surrounded (at least at the base) by a red or orange, fleshy pseudoaril. Calyx lobes and petals 4, stamens 8 (rarely 4). Leaves simple, 1-3-foliolate, or pinnate; spines often present **2. *Commiphora***

1. BOSWELLIA

Nutlets occasionally winged, always lying between the wings of the fruit-axis. True frankincense is produced by 2 or 3 species growing in northern Somalia, Dhofar and the Hadhramaut. The resinous gums produced by the Kenyan species are less valuable.

1. Leaflets 13-25, usually over 5cm long; inflorescence usually over 8cm long

3. *B. papyrifera*

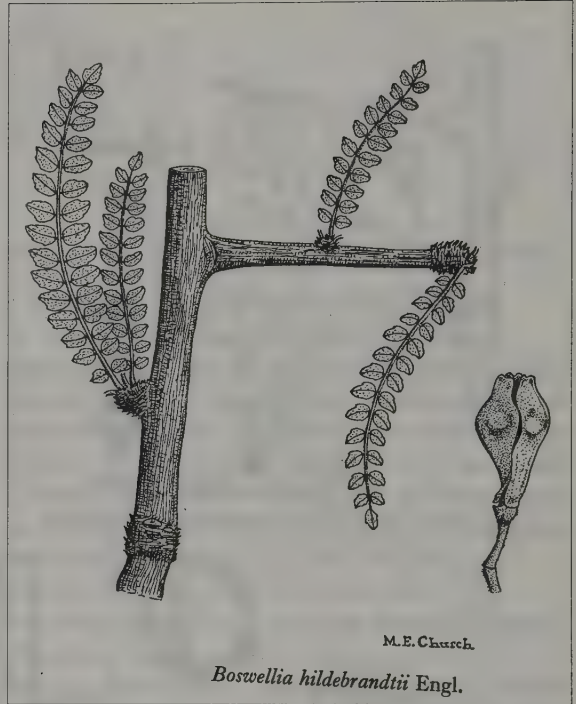
- * Leaflets under 3cm long; inflorescence under 8cm long **2**

2. Leaflets 15-25, with crenate margins; petals 4-5mm long; fruit sparsely puberulous; filaments pilose **4. *B. rivae***

- * Leaflets entire or nearly so; petals 1.5-2mm long; fruit & filaments glabrous **3**

3. Leaflets 21-47, pubescent; fruit 9-11mm wide, nutlets 4-pointed **2. *B. neglecta***

- * Leaflets 5-9 (-17), glabrous or nearly so; fruit 7-8mm wide, nutlets 3-pointed

1. *B. microphylla***1. *Boswellia microphylla* Chiov.**

Shrub or small tree up to 5m tall, with slender branches. Leaves 0.5-4.5cm long. Flowers whitish. Fruit with concave lower edges; nutlets placed about 1/4 of the fruit's length below its apex.

K1; 250-700m; rainfall 250-400mm.

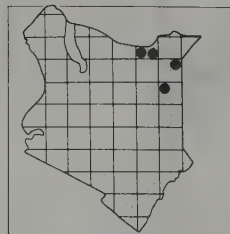
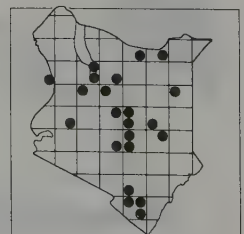
Dry *Acacia-Commiphora* bushland.

Mokh-Lidi, Mogole (BOR), Bebeh (SOM). The bark is used for tanning.

2. *Boswellia neglecta* S. Moore

(*B. hildebrandtii* Engl.; excluding fig. 16c, d, e in KTS)

Shrub or small tree up to 8m tall with more or less horizontal branches, produced near the base. Leaves 2-11cm long. Flowers white or greenish white, in

*Boswellia microphylla**Boswellia neglecta*

cymes 1-4cm long. Fruit with its lower edges nearly straight; nutlets placed about 1/3 of the fruits length below its apex.

K12347; 200-1350m; rainfall 250-600mm.

Dry *Acacia-Commiphora* bushland, chiefly on red sandy soil over basement complex. Much the commonest species in Kenya.

Dakkara (BOR, GAB), Kinondo (KAM), Dakar (ORM), Murfur-Madobe, Magafur (SOM).

3. *Boswellia papyrifera* (Del.) Hochst.

Tree up to 10m tall with smooth pale bark. Leaves 20-40cm long. Flowers white or pinkish, appearing with, or just before the leaves. Fruit glabrous, about 22mm long.

K2; only collected at 1500m at Zulia (where the borders of Kenya, Uganda and Sudan meet); rainfall about 650mm.

Dry *Acacia-Commiphora* bushland.

4. *Boswellia rivae* Engl.

(*B. hildebrandtii* sensu KTS as to fig. 16 c,d,e)

Shrub or small tree up to 6m tall. Leaves up to 17cm long. Flowers pink, pubescent, in few-flowered panicles 2-5cm long. Fruit about 17mm long.

K1; 270-750m; rainfall about 200mm.

Dry *Acacia-Commiphora* bushland; apparently confined to the valley of the Daua River north of 3° 45' N. Kurrah (BOR), Mirafur (SOM).

2. COMMIPHORA

Trees or shrubs, often spiny. Outer bark translucent and peeling, exposing the underbark which contains chlorophyll, so that photosynthesis can take place while the plant is leafless. Leaves densely clustered on shortshoots, or spaced on short internodes. In some species long-shoot leaves are apt to have more leaflets than short-shoot leaves. Leaflets in compound leaves opposite (in Kenya). Flowers (imperfectly) dioecious, the female flowers sometimes with a few functional anthers, the males occasionally with a functional ovary. Fruit a drupe with a fleshy pericarp, which splits at maturity into 2 (4) valves disclosing the stone, which is usually covered, at least at the base, by a bright red, orange or yellow fleshy pseudaril (much loved by hornbills).

Abundant in the drier parts of Kenya, where it may form a major part of the vegetation. Many species take

root easily when fresh stakes are driven into the ground, which makes them useful in hedges and stockades.

Apart from a few dry forest species, *Commiphora* is a gregarious genus, i.e. where one species is found, several others are likely to occur as well. No reason for this has been found.

Sterile plants of *Lannea* (*Anacardiaceae*) are often mistaken for *Commiphora*. In *Lannea* the bark is tough like string, and nearly always some of the hairs are stellate. Such bark is unknown in *Commiphora* and stellate hairs are not known from Kenyan species.

In the following account the "width" of a *Commiphora* fruit has been measured in the plane of its septum while "thickness" is in a plane at right angles to this. Thickness is composed of two parts, that of the sterile and that of the fertile cell. The statement "stone 8 x 5 x (1.5 + 3)mm" means that in this species the stone is about 8mm long, 5mm wide and 4.5mm thick, 1.5mm for the sterile and 3mm for the fertile cell.

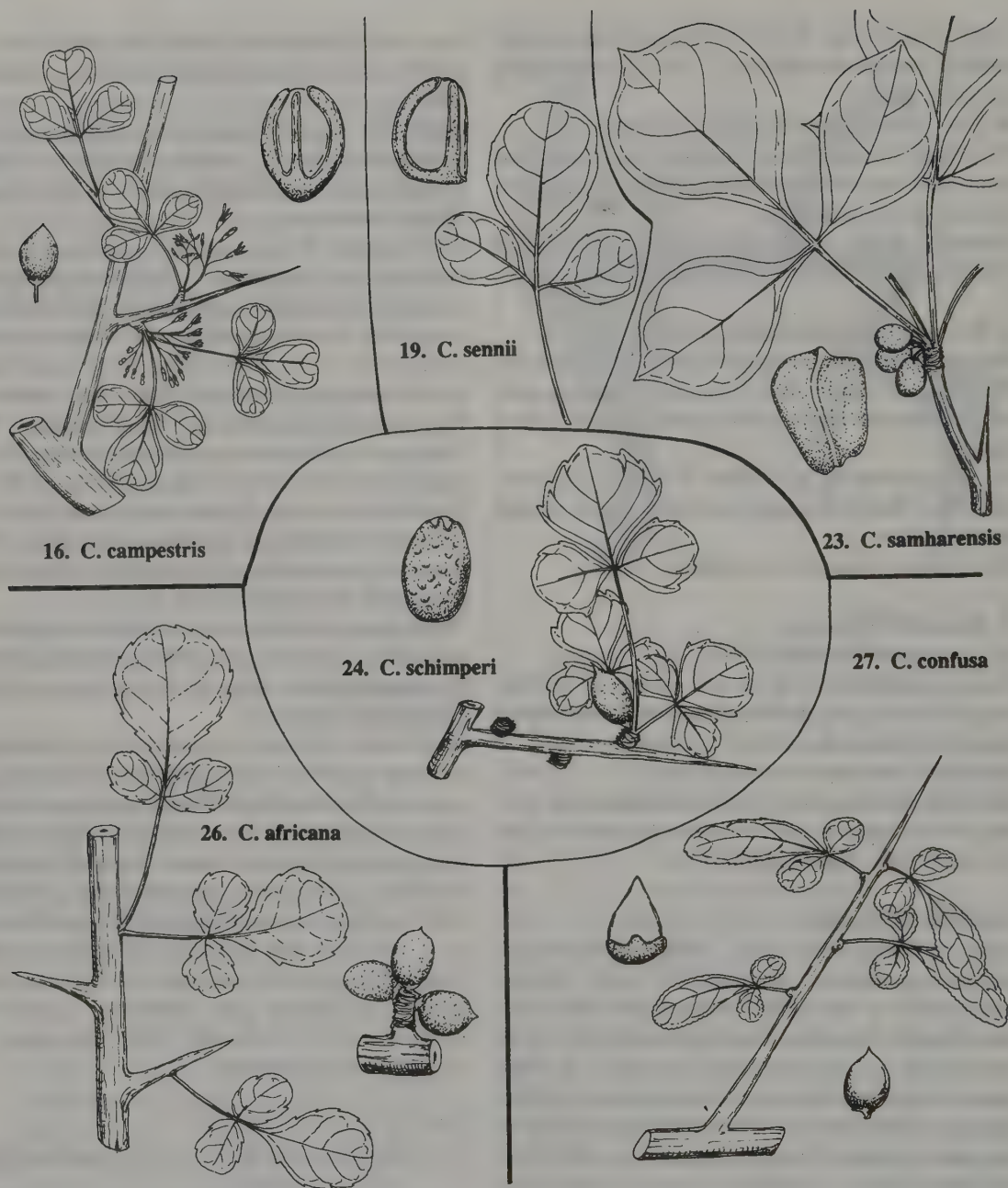
The presence or absence of true spines (sharp enough to draw blood!) is a character of the greatest importance, so care should be taken while collecting to obtain representative material.

True Myrrh, the gum resin produced by *C. myrrha*, is an important article of commerce in NE Kenya. It is valued in Islamic, Hindu, Chinese and Japanese traditional medical systems and the price tends to rise as these countries become richer. The gum resins produced by *C. habessinica* and perhaps also *C. schimperi* and *C. africana* are an inferior kind of myrrh. The gum of *C. holtziana* and probably also other species in Section *Hemprichia* is commercially known as opopanax and is used as a tick repellent. It is now of commercial value, especially in the USA where it is used on domestic animals.

KEY 1: KEY TO SECTIONS

1. Spines present; leaflets 1-3 (5-7 on long-shoots in *C. campestris*) 2
- * Spines absent; leaflets not fewer than 3 (except occasionally in *C. guidottii*) 6
2. Short-shoot leaves simple, 1-foliate or 3-foliate with very small side leaflets (less than 1/20 of terminal one) (Key 2) 3
- * Leaves all 3-foliate, or in *C. campestris* sometimes 5-7-foliate on longshoots 5

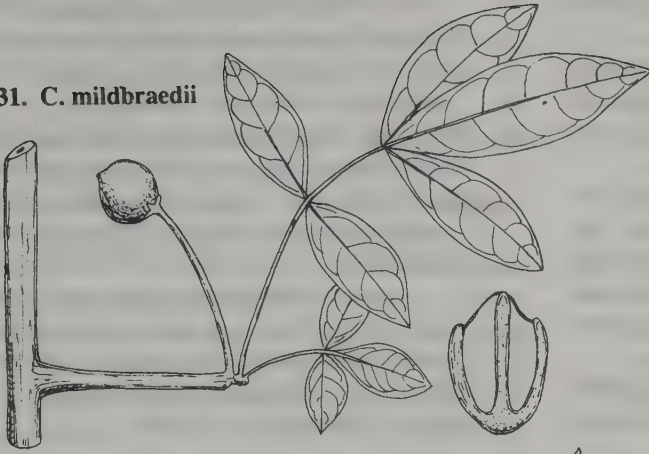
(Key 3)



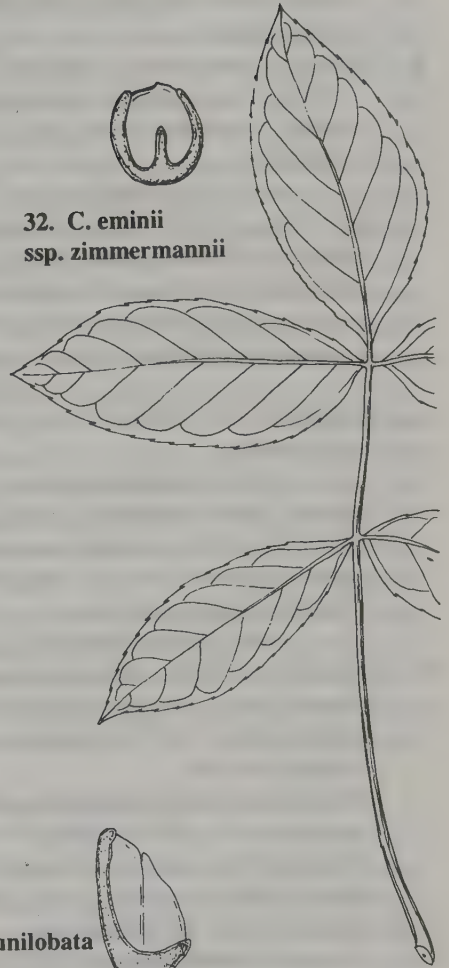
3. Fruit more than 2x as long as wide, beaked, on a stalk almost as long as itself or longer; leaves all simple, entire; sap copious, very fluid and aromatic; pseudaril completely and loosely enveloping the stone **1. *C. rostrata***

* Fruit less than 2 x as long as wide, sessile or on

31. *C. mildbraedii*



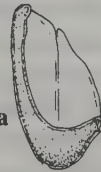
32. *C. eminii*
ssp. *zimmermannii*



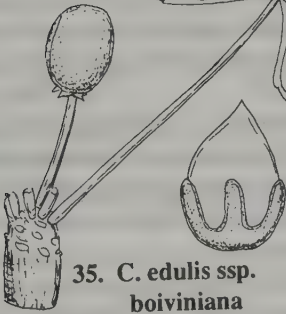
34. *C. longipedicellata*



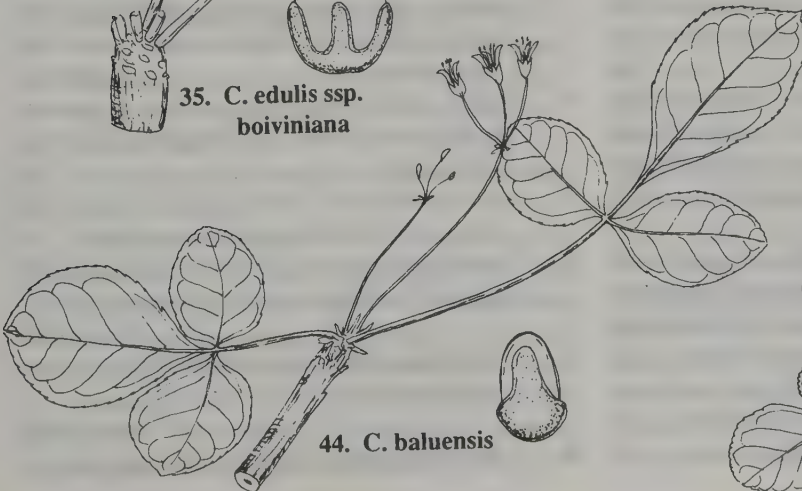
38. *C. unilobata*



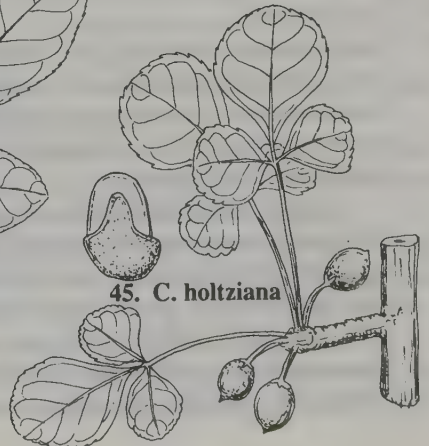
35. *C. edulis* ssp.
boiviniana



44. *C. baluensis*



45. *C. holtziana*



a stalk shorter than itself; small lateral leaflets present or not 4

4. Fruit not conspicuously flattened or beaked, sessile or on a stalk 1-2mm long; pseudaril usually 4-armed; sterile cell of stone often humped

sect. B Commiphora, key 2, spp. 2-14

- * Fruit flattened in the plane of the septum, flattened and beaked; fruit stalk 1-3mm long; pseudaril with 2 large broad facial lobes and much reduced or absent sutural lobes; stone smooth, with both cells gently convex

15. C. myrrha

5. Pseudaril 4-armed from the base; stone more or less smooth

sect. C Campestres, key 3, spp. 16-21

- * Pseudaril almost completely covering the rugose stone, to which it is closely attached, or, less often, divided in its upper part into 4 broad, irregularly triangular lobes

sect. D Africanae, key 3, spp. 22-27

6. Fruit green or reddish, often over 8mm long and 6mm wide, not streaked outside; pericarp 2-valved; calyx (incl. the receptacle) usually longer than wide 7

- * Fruit brownish, under 8mm long and 6mm wide, marked with 4 pale longitudinal streaks; pericarp 4-valved; calyx wider than long, with short broadly triangular teeth, appearing almost square in the fruiting stage

sect. Q Opopalsameae, key 7, spp. 49-50

7. Pseudaril divided almost to the base into 4 narrow arms; fruit stalk longer than the fruit

sect. E Latifoliae, key 4, spp. 28-33

- * Pseudaril either not 4-armed, or if 4-armed, then fruit sessile 8

8. Fruit in the fresh state over 12 x 10mm, due to the very thick fleshy pericarp; nearly always stalked; pseudaril cupular with 4 broad shallow lobes, or a single very large lobe (in sp. 37); petals usually glabrous

sect. G Arilopsidium, key 4, spp. 34-39

- * Fruit smaller, pericarp not very thick, pseudaril usually with rather well developed facial lobes and much smaller, or no, sutural lobes 9

9. Male and female flowers sessile or nearly so; petals pubescent outside; fruit subglobose; facial lobes of pseudaril usually rather narrow

sect. M Hildebrandtiana, key 5, spp. 40-43

- * Male and female flowers stalked; fruit ellipsoid, flattened (i.e. wider than thick); pseudaril with large broad facial lobes, smooth 10

10. Outer bark of trunk peeling in rather large white or yellowish flakes or sheets from the blue-green under-bark; stamens 8; petals yellow, usually pubescent outside; inflorescence not glandular; leaflets sometimes 5-7 on long-shoots

sect. N Hemprichia, key 6, spp. 44-47

- * Outer bark peeling, if at all, in small greyish-brown flakes; stamens 4; petals red, glabrous; inflorescence glandular; leaflets always 3

sect. P Ciliatae, key 6, sp. 48

KEY 2, SPECIES 1-15 (+25)

1. Lateral leaflets always absent from short-shoot leaves 2

- * Lateral leaflets (sometimes minute) present in some or all short-shoot leaves, as well as in long-shoot leaves; leaves glabrous 13

2. Leaves entire or with vaguely undulate margins; petiole sometimes over 3mm long 3

- * Leaves more or less toothed; petiole under 3mm long 4

3. Leaves less than 2 x as long as wide, always simple; outer bark very dark, not peeling in strips; fruit on a stalk as long as itself or longer; exudate copious, clear, very fluid, strongly resin-scented 1. *C. rostrata*

- * Leaves more than 2 x as long as wide, those on long-shoots sometimes 3-foliolate; outer bark peeling off in strong pale horizontal strips; fruit sessile; exudate not copious, tacky, with a foul fishy odour 2. *C. bruceae*

4. Leaves under 25mm long, almost or quite as broad as long, with 2-3 (-4) large teeth or lobes on each side 5

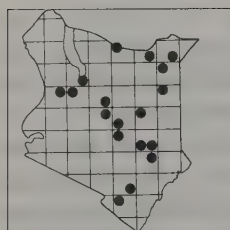
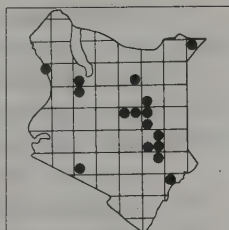
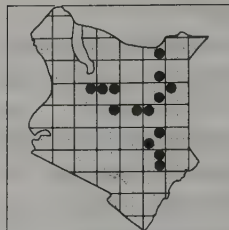
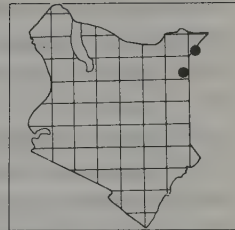
- * Leaves often over 25mm long and longer than wide, with 4 or more teeth on each side 6

5. Teeth of leaves sharply pointed; twigs stout, the spines about 2mm across 1cm below the tip 3. *C. incisa*

- * Lobes of leaves rounded; twigs slender, the spines about 1mm across 1cm below the tip 4. *C. gracilisipina*

6. Leaves pubescent, at least on the veins beneath,

- the hairs over 0.1mm long 7
- * Leaves glabrous, except sometimes for some golden hairs at the junction of petiole and lamina 9
7. Each leaf margin with 4-8 teeth; long-shoot leaves sometimes 3-foliolate; pseudaril 4-armed 8
- * Each leaf margin with 10 or more teeth; all leaves simple; pseudaril enveloping the stone 7. *C. swynnertonii*
8. Leaves pubescent all over; fruit densely hairy, hairs 1.5-2mm long 5. *C. chaetocarpa*
- * Leaves usually only hairy on the basal veins; fruit glabrous or with sparse glandular hairs to 0.1mm 6b. *C. kua* var. *gowlello*
9. Leaves narrowly elliptic, acute, widest at or below the middle, crinkled at the margin with about 12 sharp teeth scattered along the whole margin; fruit sessile, about 5mm long 8. *C. oddurensis*
- * Leaves widest above the middle, not crinkled at the margin, with few teeth below the middle 10
10. Sterile cell of stone with a central hump or marked ridge on the upper part of its back 11
- * Sterile cell of stone flat or slightly ridged; pedicels of male flowers under 2mm long, not slender 11. *C. habessinica*
11. Flowers all sessile or almost so; extreme base of leaf cuneate or rounded 6a. *C. kua* var. *kua*
- * Male lowers with slender pedicels over 2mm long 12
12. Leaves less than half as wide as long, truncate at the very base though cuneate in outline; calyx less than 2mm long; fruit about 5mm long 9. *C. ellenbeckii*
- * Leaves more than half as wide as long, cuneate at the extreme base; calyx over 2mm long; fruit about 10mm long 10. *C. merkeri*
13. Fruit not markedly flattened, not, or hardly, beaked 14
- * Fruit clearly flattened, ovoid, strongly beaked; pseudaril with large broad facial lobes and reduced sutural lobes; petiole 1-7mm; leaf blade not over 4cm long, with entire or vaguely crenate margins, or toothed with up to 3 lobes or teeth 15. *C. myrrha*
14. Teeth or crenations on each side of the terminal leaflet fewer than 11, well marked; leaf blade usually under 4cm long 15
- * Teeth on the terminal leaflet minute or absent, or, if present, often more than 11 on each side; leaf blade usually more than 4cm long 16
15. Lateral leaflets of short-shoot leaves not more than 4mm long, narrowly elliptic-lanceolate, entire, sometimes absent; petiole 0.5-3mm long or sometimes more on long-shoots; pseudaril 4-armed, stone smooth 12. *C. lindensis*
- * Lateral leaves of short-shoot leaves suborbicular, usually crenately lobed, obtuse, always present; petiole 2-5mm long; pseudaril almost completely covering the rugulose stone 25. *C. obovata*
16. Leafblade elliptic-oblong; petiole less than 8mm long, less than 10 % of the length of the leaf; lateral leaflets up to 4mm long; pseudaril almost covering the verrucose stone, irregular at the margin 13. *C. oblongifolia*
- * Leafblade ovate-elliptic; petiole 4-20mm long, more than 20 % of the length of the leaf; lateral leaflets often over 4mm long; pseudaril 4-armed, the arm on the sterile cell linear, the others triangular 14. *C. ovalifolia*
1. *Commiphora rostrata* Engl. var. *rostrata*
Map next page
- Spiny shrub or small tree to 4m tall, glabrous throughout. Bark rather smooth, grey or purplish black; exudate very fluid and aromatic. Petiole 1-8mm long, leaf blade entire, elliptic, 10-45mm long, 8-35mm wide. Male inflorescence a pedunculate cyme up to 3cm long, 8-20-flowered; petals dark red, 4-6mm long. Female inflorescence 1-2-flowered, up to 2cm long, very slender. Fruit beaked, 13-18mm long, 4-6mm wide, the stone 8-10mm long.
K147; 80-1050m; rainfall 220-270mm.
- Widespread in *Acacia-Commiphora* open bushland, usually on sloping ground.
- Diraa, Tirai (BOR), Choneh (ILW), Udesi (ORM), Jenau, Danu, Danu-Sagar (SOM). The leaves are eaten as a vegetable and are pleasantly acid.
- 1b. var. *reflexa* (Chiov.) J.B. Gillett: differs from var. *rostrata* in its spreading, prostrate or scandent habit and more slender almost zigzag branches, the smaller of which are reflexed and act as hooks in climbing.
K1 north of 3° N; 660-780m; rainfall about 230mm. Habitat as var. *rostrata*, with which it may co-exist.

*Commiphora rostrata**Commiphora bruceae**Commiphora incisa**Commiphora gracilispinga*

2. *Commiphora bruceae* Chiov.

Spiny shrub or small tree up to 3 (-5)m tall. Trunk cylindrical, the outer bark peeling in tough grey horizontal strips with long horizontal lenticels. The exudate hardens to a white gum and may develop a foul fishy smell. Leaves glabrous, narrowly elliptic, lanceolate or oblanceolate, usually 1-foliate, but sometimes 3-foliate on longshoots, the margin usually more or less entire but sometimes in large leaves with a few teeth near the apex; base gradually narrowed into a petiole of 1-5 (-17)mm; usually 30-50 by 5-20mm but on luxuriant coppice shoots up to 100 by 55mm. Flowers glabrous, sessile or on pedicels under 1mm long, greenish yellow, 4.5-5mm long. Fruit, including the 1.5mm beak, about 8mm long, 5.5mm wide, (1.5 + 3)mm thick. Sterile cell of stone almost flat.

K127; 20-1075m; rainfall 220-270mm.

Acacia-Commiphora bushland, often on alluvium.

May be difficult to distinguish from *C. habessinica*.

3. *C. incisa* Chiov.

(*C. candidula* Sprague)

Very spiny shrub up to 3m tall, glabrous except for tufts of weak yellowish hairs often present at the leaf base. Outer bark yellowish, peeling transversely to form scrolls. Twigs stiff, straight, tapering, about 2mm across 4cm below the tip. Exudate milky, faintly scented, hardening to a yellowish-red rather leathery resin. Petiole under 1mm long. Long-shoot leaves sometimes 3-foliate and then resembling tufts of 3 leaves; leaf blade cuneate-obovate, 10-18 by 8-12mm, with 1-2 (-3) large broad teeth on each side near the apex. Male flowers greenish yellow, about 5mm long on pedicels up to 1.6mm long; petals linear. Female flowers about 3.5mm long on pedicels up to 1.2mm long. Fruit obovoid about 7 x 5.5 x (2+3)mm; sterile cell of the stone distally humped.

K17; 60-1300m; rainfall 230-260mm.

Open *Acacia-Commiphora* bushland, sometimes rather abundant.

Waraa (GAB), Warharhebho (ILW), Warabreb (SOM). Close to the next species with which it has sometimes been confused.

4. *Commiphora gracilispinga* J.B. Gillett ined.

(*C. crenulata* sensu KTS, p.p.)

Spiny shrub up to 2m tall; glabrous. Stems dark brownish black, the outer bark peeling transversely; twigs unusually slender, about 1.5mm across 4cm below the tip. Exudate faintly scented, hardening to form small pale yellow beads. Long-shoot leaves sometimes 3-foliate; petiole 0-0.5mm long; blade up to 11 by 9mm, elliptic, cuneate-obovate or almost orbicular with 2-3 broad obtuse lobes on each side. Flowers usually precocious, subsessile, dark red, slender, up to 5mm long. Fruit about 7 x 2.5 x (1.5 + 2.5)mm (i.e. much thicker than wide).

K1 north of 2° N, east of 40° E; 360-390m; rainfall about 230mm.

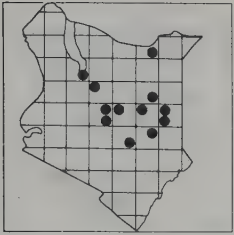
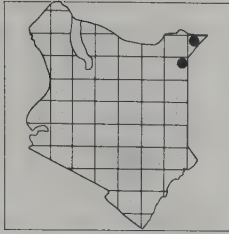
Uncommon in open *Acacia-Commiphora* bushland on red sandy loam.

5. *Commiphora chaetocarpa* J.B. Gillett ined.

RARE

Spiny shrub or small tree up to 3m tall, the young stems, leaves and calyx pubescent or hispidulous with erect hairs often 0.2-0.3mm long. Long-shoot leaves often hetero-3-foliate. Petiole 0-1mm long, blade cuneate-elliptic-obovate or spatulate, apex rounded, up to 22 by 10mm, with 4-7 well-marked rounded lobes on each side. Flowers shortly pedicellate. Fruit about 3 x 2.5 x (0.5 + 2)mm, densely covered with erect bristly hairs 1.5-3mm long.

K1; collected once near Garissa at 200m alt; rainfall

*Commiphora kua**Commiphora oddurensis*

about 230mm.

Open *Acacia-Commiphora* bushland on sandy soil.

Note. The Kenya plant is male and does not show the highly characteristic fruit seen in Somali specimens.

6. *Commiphora kua* (J.F.Royle) Vollesen

[*C. flaviflora* Engl., *C. crenulata* (A. Terr.) Chiov.]

Spiny shrub or small tree up to 3m tall; outer bark peeling transversely in broad yellowish or grey strips; exudate creamy, faintly scented. Leaves subsessile, rarely more than 20 by 10mm, sometimes heterotrifoliate on long shoots, usually crenate-ovate, less often subelliptic, apex truncate, rounded or acute, with 4-8 rather sharp teeth on each side. Flowers precocious or appearing with the leaves, sessile, yellowish green or pale red, the male about 4mm, the female about 3mm long. Fruit sometimes with 2 fertile cells and then about 6 x 4.5 x (2.7 + 2.7)mm, usually 7-8 (including a 0.5mm beak) x 5 x (2 + 3.5)mm.

- var. *kua*: glabrous throughout; rainfall about 250mm. K1, Samburu Distr.; 600-800mm.

- var. *gowlollo* (Sprague) J.B. Gillett (*C. gowlollo* Sprague): young stems and leaves, at least on the veins beneath, pubescent, calyx usually pubescent.

K147; 900-1000m; rainfall 230-260mm.

Chalanga, Dabasso (BOR), Warab-reb (SOM).

Acacia-Commiphora open bushland; much commoner than var. *kua*.

Note: some of the specimens cited as *C. flaviflora* in KTS are var. *gowlollo*, more are *C. habessinica* and one is *C. swynnertonii*.

7. *Commiphora swynnertonii* B.D. Burt RARE

Spiny shrub or small tree up to 6m tall; twigs with floccose indumentum when very young but soon glabrescent; ultimate branches pendulous; outer bark peeling in large strong transverse strips; sap watery, slightly scented. Leaves all simple; petiole 0-2mm long; blade with a dense floccose indumentum when

young, parts of which remain on the veins at maturity, broadly elliptic-obovate, base attenuate, apex rounded, up to 20 by 15mm, with 11-16 short sharp teeth on each side. Male flowers \approx 3mm long, in dense clusters. Fruit sessile, 8-10 (incl. a beak up to 2mm) x 5 x (2 + 3)mm; pseudaril thin, yellow, completely enclosing the stone.

K1; 750-900m; rainfall about 300mm.

Acacia-Commiphora bushland at the foot of Dandu mountain.

Warabreb (SOM).

8. *Commiphora oddurensis* Chiov.

Spiny shrub to 4m tall; glabrous; bark of main stem brownish grey, the outer bark peeling off in tiny scrolls; exudate milky, faintly scented, producing a hard yellow resin. Leaves all simple, leathery, subsessile, narrowly elliptic-lanceolate, base truncate, apex acute, up to 25 by 6mm, crinkled at the margin, with about 9 sharp almost spiny teeth along the whole margin. Fruit subsessile, wrinkled, subglobose, the pericarp finally 4-valved, 5.7 x 5 x (1.7 + 3.5)mm, the sterile cell of the stone slightly humped distally.

K1; 400-600m; rainfall about 230mm.

Open *Acacia-Commiphora* bushland on limestone slopes.

9. *Commiphora ellenbeckii* Engl. Map next page

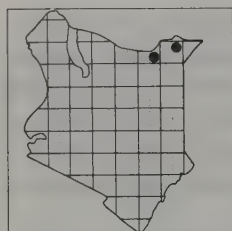
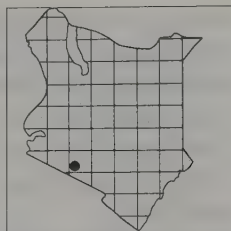
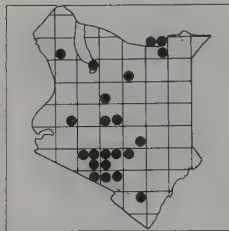
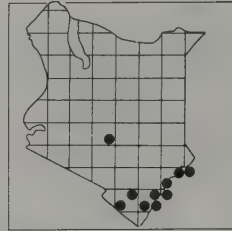
Spiny shrub or tree 1-3m tall; glabrous; bark peeling in strong transverse strips. Long-shoot leaves sometimes 3-foliate, blade 7-20 by 4-12mm, narrowly obovate or oblong-obovate, base narrowly truncate, usually with 1-4 broad crenations on each side; petiole 0.5-1mm. Male flowers (often galled) in 1-3-flowered cymes 1.5-11mm long, the petals linear, widened near the tip, about 5mm long. Female flowers on pedicels less than 2mm long. Fruit c 5.3 x 4 x (1 + 2.5)mm, usually bent over on the sterile side so that the style is at an angle of 40-60° with the axis of the pedicel.

K1; 780-850m; rainfall 230-250mm.

Acacia-Commiphora open bushland on red sandy soil; uncommon.

Khumbi, Dabasso (BOR), Warab reeba (GAB).

Note. KTS ascribes vernacular names and localities to this species which really pertain to *C. myrrha*.

*Commiphora ellenbeckii**Commiphora merkeri**Commiphora habessinica**Commiphora lindensis***10. *Commiphora merkeri* Engl.**

Spiny shrub or tree up to 5m tall; glabrous; outer bark peeling from the glossy dark green underbark in large pale yellow fragile papery sheets; exudate copious, very fluid, usually with a well-marked fruity resinous smell; ultimate branchlets often pendulous. Leaves all simple, up to 30 by 15mm, on long-shoots more or less elliptic, on short-shoots cuneate-obovate, with 3-5 sharp teeth on each side. Male flowers dull red, c 5mm long, either solitary or in 2-3-flowered cymes with peduncle and pedicels 5-6mm long. Fruit on a 0.5-3mm stalk, c 11 (incl. a 3mm beak) x 5.5 x (1.8 + 4)mm. Pseudaril with 4 unequal irregular arms, that on the fertile cell wider than the other 3. Sterile cell of stone with a well-marked dorsal ridge.

K6; 800-1200m; rainfall 300-400mm.

Acacia-Commiphora open bushland on stony slopes chiefly in the Magadi depression.

Ol-Dimitil (MAA).

11. *Commiphora habessinica* (O. Berg) Engl.

(*C. madagascariensis* sensu KTS p.p., non Jacq.)

Spiny shrub or tree up to 4 (-6)m tall; almost glabrous; outer bark yellowish, peeling from the green underbark, exudate faintly scented, forming a gum. Long-shoot leaves often 3-foliolate; petiole 0-2mm (rarely more) usually with a few long flexuous yellowish hairs at the base of the leaf; blade elliptic or obovate, base cuneate, apex rounded or acute, 5-45 (-60) by 7-25mm, nearly always crenate-serrate with 6-14 teeth on each side. Male flowers greenish-yellow, 5-6mm long, usually precocious in clusters of 3-8, sessile or with a pedicel of up to 1.5mm. Female flowers 2-4 together on pedicels under 0.5mm long. Fruit oblong-ellipsoid, 10 (incl. a 1-2mm beak) x 7.5 x (2 + 4)mm. Sterile cell of stone slightly convex, not ridged or humped.

K123467; 500-1900m; rainfall 300-800mm.

Often common in bushed grassland or the upper parts

of *Acacia-Commiphora* bushland, especially in rocky places. In most of its range this is the only 1-foliolate *Commiphora*; where ranges overlap care is needed to distinguish it from *C. bruceae*, *C. merkeri* and *C. lindensis*.

Jalanga (BOR), Challankaa (GAB), Mutongtongo (GIR), Mutungu, Mutungati (KAM), Warabreb (SOM).

12. *Commiphora lindensis* Engl.

(*C. madagascariensis* sensu KTS p.p., non Jacq.)

Spiny shrub or tree up to 3 (-5)m tall, occasionally subsclerous; glabrous; outer bark peeling in horizontal papery strips; exudate hardly scented, gummy. Both long- and short-shoot leaves often hetero-3-foliolate with tiny elliptic-lanceolate entire, rather caducous lateral leaflets, usually under 3mm long; on long-shoot leaves much larger toothed lateral leaflets may occur; petiole 0.5-3mm long; blade elliptic-ob-lanceolate, base cuneate or attenuate, apex rounded or acute, up to 40 by 18mm, with 9-12 small teeth on each side. Flowers yellowish green, usually precocious, subsessile, the males c 5mm long, in clusters; females c 3mm long, often single. Fruit slightly pointed, subglobose, c 6 x 5 x (2 + 4)mm; sterile cell of stone markedly humped distally.

K47; 1-800m; rainfall 600-950mm.

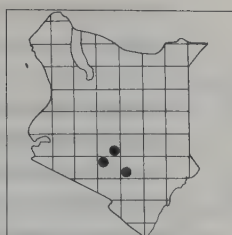
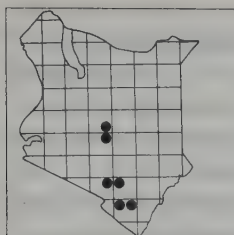
Semi-evergreen thickets in the coastal belt, and on rocky slopes inland.

M(u)chongoma (SWA).

The only more or less 1-foliolate sp. near the sea; has been confused with *C. habessinica* and *C. obovata*.

13. *Commiphora oblongifolia* J.B. Gillett ined.

Slender shrub or tree up to 5m tall with sparse short lateral spines but the longer branches not spine-tipped; glabrous; outer bark peeling in large translucent flakes from the dark green underbark; exudate copious, clear, faintly scented. Leaves mainly scattered singly (i.e. short-shoots hardly developed), almost all hetero-3-



Commiphora oblongifolia *Commiphora ovalifolia*

foliolate; petiole 3-8mm long; lateral leaflets suboblong, entire, up to 5 by 1.5mm; main blade oblong or elliptic-oblong, up to 90 by 40mm, base broadly cuneate, apex rounded or pointed and apiculate, with 5-15 very minute crenate serrations on each side. Male flowers clustered densely 5-20 together at the tips of branches. Fruit subglobose, 8 x 7.5 x (3 + 4.5)mm on a 1-2mm stalk; pseudaril covering most of the stone with well-marked sutural lobes and an irregular margin; stone verrucose, appearing sharply three-angled when seen from above, the sterile cell having a well-marked narrow distal hump.

K47; 600-1050m; rainfall 500-600mm.

Apparently restricted to a few rocky hills in *Acacia-Commiphora* bushland, but may be more common than it would seem, as it grows intertwined with other species.

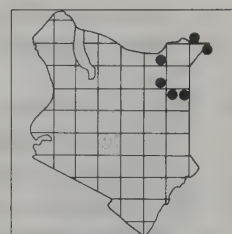
14. *Commiphora ovalifolia* J.B. Gillett ined.

Spreading shrub or tree to 8m tall; glabrous; longer shoots not spine-tipped but sparse lateral spines 10-25mm long are present; outer bark peeling in pale papery scrolls from the green underbark; exudate neither copious nor strongly scented. Petiole 4-20mm long; lateral leaflets usually present, 1-9 (-22) by 0.5-4 (-10)mm; main blade ovate-acuminate, base rounded or broadly cuneate, up to 70 by 50mm, the margin entire or with very minute serrations. Fruits 2-3 together on 1-2mm long stalks at the tips of short-shoots, 11.5 (incl. beak of 0.5mm) x 10 x (5.5 + 8)mm; pseudaril covering the base of the stone with 4 broadly triangular lobes.; sterile cell markedly humped distally.

K46; 800-1300m; rainfall 600-900mm.

Dry semi-deciduous dense bushland or low dry forest on rocky slopes.

Commiphora myrrha



SECTION CORIACEAE

15. *Commiphora myrrha* (Nees) Engl.

(*C. coriacea* Engl.)

Spiny shrub or tree to 5m; glabrous; usually with a distinct short stout trunk; outer bark silvery, yellowish or bluish, peeling in small papery flakes from the green underbark; exudate slightly scented, forming a hard translucent yellowish gum. Leaves grey-green or glaucous, very variable; petiole 1-10mm long; lateral leaflets usually present, sometimes quite large in long-shoot leaves, very small in short-shoot leaves; blade elliptic, spatulate or lanceolate, base attenuate, cuneate or rounded, apex acute or rounded, 6-40 by 3-20mm, almost entire or with up to 6 rather large broad teeth on each side. Male flowers greenish yellow, c 4.5mm long, 2-4 together in 3-4mm long cymes. Fruit stalk 2-4mm long; fruit flattened ovoid, 10-12.5 (incl. a 2.5mm beak) x 6-6.5 x (1.6 + 3.5)mm; pseudaril with 2 broad oval facial lobes and minute sutural lobes; stone smooth, flattened, with gently convex faces.

K1; 220-800m; rainfall 230-300mm.

Acacia-Commiphora open bushland on shallow soils, usually (always?) over limestone.

Gum myrrh tree (STAND), Kumbi (BOR), Doddin, Molmol (SOM). The main source of Myrrh.

KEY 3 SECTIONS CAMPESTRES & AFRICANAE

1. Leaflets and young stems glabrous 2
- * Leaflets and/or young stems pubescent 12
2. Leaflet margin entire or vaguely undulate or with 1-3 slight crenulations or small teeth 3
- * Leaflet margin definitely toothed or lobed 6
3. Both long and short spines present; i.e. quite long branches as well as specialized short ones end in spines; fruits rounded or truncate at the apex, sometimes with an apiculus (persistent style base) but not tapering into a beak; fruit stalk usually over 2mm long 4
- * Only short spines present, not above 3cm long;

fruit stalk 1-2mm long; fruit tapering into a beak; pseudaril with 4 narrow arms

19. *C. sennii*

4. Fruit wider than thick, the stone smooth, its sterile cell gently convex, not humped; male inflorescence pubescent, 10-30mm long **5**

- * Fruit as thick as wide, pseudaril almost entirely covering the rugose stone whose sterile cell is humped; fruit stalk 2-5mm long; all leaves 3-foliolate; exudate copious, very thick, strongly resin-scented

23. *C. samharensis* ssp. *terebinthina*

5. Fruit stalk (2)3-5mm long; pseudaril 4-armed, the facial arms often wide and irregular; exudate not, or but slightly, scented; leaves on long shoots sometimes 5-7-foliolate

16. *C. campestris*

- * Fruit stalk much longer than 5mm
forms of **16 & 17 *C. sp. A***

6. Leaflets acuminate with more than 15 small teeth on each side whose short upper edge is less than 1/20 as long as the subtending vein **7**

- * Leaflets not or hardly acuminate; teeth larger, well defined, fewer than 15 on each side **8**

7. Exudate not strongly resin-scented; fruit beaked, 12-17mm long, 10-11mm wide, on a stalk 1-2mm long; pseudaril 4-armed

18. *C. pteleifolia*

- * Exudate strongly resin-scented; fruit truncate, 8-12mm long, 6-8mm wide, on a stalk up to 4mm long; pseudaril almost completely covering the rugose stone

23. *C. samharensis* ssp. *terebinthina*

8. Teeth 10-14 on each side of the terminal leaflet; twigs rather stout, over 3mm across; fruit about 9mm long **9**

- * Teeth fewer than 10 on each side of the terminal leaflet **10**

9. Fruit ovoid-ellipsoid, pointed, on a stalk 0-2mm long; pseudaril very thin, almost entirely covering the rugulose stone **22. *C. danduensis***

- * Fruit ellipsoid-globose, not pointed, on a stalk about 3mm long; pseudaril with 4 rather broad arms **21. *C. sp. B***

10. Pseudaril 4-armed; bark smooth, dark grey or brown, not peeling; twigs slender, up to 2mm across; petiole very slender, under 0.4mm across; lateral leaflets more than half as long as

the terminal one, rarely over 10mm long; fruit, when dry, up to 8mm long and 5mm wide

20. *C. tenuis*

- * Pseudaril almost entirely covering the rugose stone; twigs stout (3-4mm across); petiole less slender (over 0.4mm across) **11**

11. Fruit beaked; lateral leaflets at least half as long as the terminal one; outer bark yellowish, peeling off from the green underbark

24. *C. schimperi*

- * Fruit obtuse; lateral leaflets much less than half as long as the terminal one **25. *C. obovata***

12. Leaflets sometimes 5-7 on long-shoots, their margin entire or very faintly crenate; stone smooth; pseudaril 4-armed **20. *C. campestris***

- * Leaflets always 3, always clearly toothed; stone rugose **13**

13. Flowers red, appearing before the leaves; calyx usually glabrous; pseudaril almost completely covering the stone **26. *C. africana***

- * Flowers yellow, appearing with the leaves; calyx pubescent; pseudaril 4-armed, the facial lobes oblong or triangular, the sutural ones linear

27. *C. confusa*

16. *Commiphora campestris* Engl.

(*C. scheffleri* Engl.)

Spiny tree up to 9m tall with massive, irregular, angled trunks; outer bark yellowish, breaking away in rather small flakes from the greenish underbark; sap hardly scented; spines stout. Petioles always well-developed, sometimes longer than the leaflets; short-shoot leaves always 3-foliolate, long-shoot leaves sometimes 5-7-foliolate; leaflets usually less than 2 x as long as wide, their margins entire or nearly so, the laterals suborbicular or elliptic, at least half as large as the terminal one which is oblong or obovate, 15-30 (60)mm long by 10-15 (40)mm wide. Male flowers in lax cymes on peduncles to 30mm long; female inflorescences much shorter but fruit stalk never less than 2mm long. Fruit a flattened spheroid, c 10 x 10 x (2 + 4.5)mm; pseudaril 4-armed, the facial arms often broad and irregular with isolated spots of pseudaril sometimes present on the smooth gently convex faces of the stone.

Hamesa (BOR), Goneri (MAA), Kuro (ORM), Hamesa (SOM), Mbambara (TAI), Etopojo (TUR).

Key to ssp. and vars.

1. Hairs on inflorescences and young stems copious, stiff, erect, 0.2-0.5mm long 2
- * Hairs on inflorescences and branchlets < 0.2mm long or absent; leaflets glabrous 3
2. Leaflets glabrous, glaucous; tree rounded in outline; fruit nearly glabrous

ssp. campestris var. campestris

- * Leaflets hispidulous, yellowish green; tree flat-topped or umbrella shaped; fruit more or less tomentose *ssp. campestris var. heterophylla*
- 3. Fruit pubescent, leaflets narrow *ssp. wajirensis*
- * Fruit glabrous, leaflets broader 4
- 4. Young stems and calyx densely tomentellous with hairs under 0.2mm long *ssp. glabrata*
- * Young stems and calyx glabrous

*ssp. magadiensis***- 16a ssp. *campestris* var. *campestris***

Tree 5-9m, rounded in outline, ultimate branchlets often hanging almost to ground level; foliage blueish green.

K147; 280-950m; rainfall 450-550mm.

Acacia-Commiphora bushland on basement complex slopes; common in Kibwezi-Taita area.

- 16b ssp. *campestris* var. *heterophylla* (Engl.) Gillett (*C. heterophylla* Engl.)

Tree 3-9m, flat-topped or umbrella-shaped, the ultimate branches more or less horizontal; foliage yellowish green.

K1467; 50-1100m; rainfall 350-550mm.

Acacia-Commiphora bushland or open woodland on basement complex soils. Conspicuous south of Hunters Lodge.

NOTE. vars. *campestris* and *heterophylla* occur together in the Kibwezi-Taita area and intermediates occur. The type of *C. scheffleri* seems to be such an intermediate plant.

- 16c. ssp. *glabrata* (Engl.) Gillett comb. nov. ined. (*C. glabrata* Engl.)

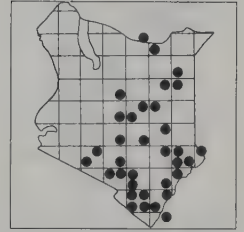
Tree 2-8m tall, remarkable for the dense fine velvety indument of hairs (ca. 0.1mm long) on young shoots, inflorescence and calyx, which disappear with age.

K17; 10-200m; rainfall 350-850mm.

Coastal bushed grassland and *Acacia-Commiphora* bushland, often on silty alluvium less than 100 km from the sea.

- 16d. ssp. *magadiensis* Gillett ined.

Bushy tree 2-4m tall, the trunk often very short; all

Commiphora campestris

parts glabrous except for the male inflorescence; leaves glaucous.

K6; 600-1200m; rainfall about 400mm.

Open *Acacia-Commiphora* bushland on volcanic soils; confined to the Magadi depression. Often together with *C. samharensis* ssp. *terebinthina*, to which it is similar, and with which it was confused in KTS.

- 16e. ssp. *wajirensis* Gillett (*C. rivae* sensu KTS p.p.) Tree 3-4m tall; leaves yellowish green; petiole unusually slender (0.2-0.3mm across); leaflets unusually narrow, up to 10mm wide and about twice as long. Fruit pubescent.

K17; 200-350m; rainfall 230-300mm.

Open *Acacia-Commiphora* bushland on reddish sandy soil.

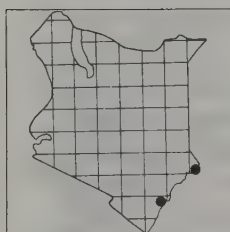
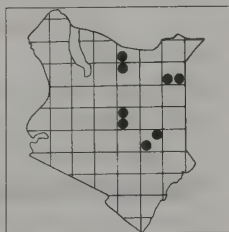
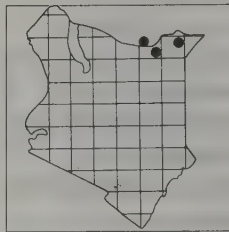
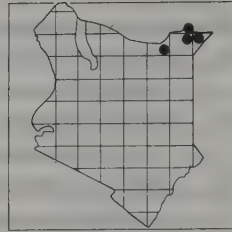
NOTE. Although the fruit stalk in all forms of *C. campestris* is usually (2)3-5(9)mm long, specimens otherwise resembling var. *heterophylla* and another otherwise resembling ssp. *glabrata* have been seen in which the fruit stalk is 25-50mm long. In both cases these were growing next to ordinary representatives of these taxa. It is thought that they are male plants in which one or more ovaries had - as an exception - proved fertile.

17. *Commiphora* sp. A

Small spiny tree. Leaves all 3-foliolate, glabrous. Inflorescence cymes up to 30mm long, pubescent with very short hairs. Fruit glabrous, rather pointed (perhaps immature) rather smaller than that of *C. campestris*. Pseudaril ?4-armed.

K7; collected 30 km N of Galole (S.A. Robertson 1851) at 75 m.

Perhaps an abnormal plant of *C. campestris* in which a male inflorescence has become fertile. It is possible that male plants from the Tana valley which have been assigned to ssp. *wajirensis* belong here. However the smaller glabrous fruit is wrong for ssp. *wajirensis*.

*Commiphora pteleifolia**Commiphora sennii**Commiphora tenuis**Commiphora danduensis***18. *Commiphora pteleifolia* Engl.**

Slender, straggling, sometimes subscandent shrub or tree 2-6m tall; glabrous; spines short, often sparse, the long-shoots not spine-tipped; bark smooth, green or dark grey. Leaves all 3-foliolate, the petiole more than half as long as the terminal leaflet which is elliptic-lanceolate, acuminate, 25-90 by 20-40mm, with a minutely crenate-serrate margin. Male flowers dark red, in short clusters. Fruit on a 2-3mm stalk, ovoid, beaked, 11-18 (incl. beak of 4-5mm) x 11 x (2+6)mm. K7; 1-450m; rainfall 750-950mm.

Coastal and riverine semi-evergreen thickets; sometimes on termite mounds, not common.

Used as live fence posts.

Note. The maximum altitude cited in KTS was based on a misidentification of *Trump 46* (sp. 23).

19. *Commiphora sennii* Chiov.

Shrub with rather stout branches, rather prostrate or ascending to 3m; glabrous; spines 1-2cm long, often rather sparse, long-shoots not spine-tipped; outer bark peeling in curled flakes from the pale green underbark; exudate milky, faintly scented. Leaves yellowish green, always 3-foliolate; petiole about as long as the terminal leaflet which is cuneate-obovate, attenuate at the base, about twice as large as the lateral leaflets, up to 50 by 30mm, with a vaguely and sparsely crenate-serrate margin. Male cymes under 5mm long. Fruit ovoid, often in clusters of 2-4 on stalks 3-6mm long; pericarp 4-valved, c 15mm (incl. the 4mm long beak) x 13 x (1.5 + 8)mm; pseudaril with 4 narrow linear arms; stone smooth, the sterile cell flat.

K147; 200-900m; rainfall 200-400mm.

Acacia-Commiphora open bushland on silty alluvium or soils derived from lava, sometimes forming dense clumps. The only woody plant in large areas of the Dida-Galgalla lava subdesert.

Hames Hamacho (BOR), Hodhei (SOM).

20. *Commiphora tenuis* Vollesen

Spiny shrub 1.5-3m tall; glabrous except for some hairs on the bud-scales and bracts; bark grey, smooth, not flaking; sap nearly odourless. Leaves all 3-foliolate, the petiole very slender, 3-17mm long; leaflets round or elliptic, deeply and irregularly crenate, the terminal 5-15 by 5-14mm; laterals 3-11 by 3-9mm. Flowers dark red, precocious, almost sessile. Fruit on a 1-2mm stalk, ellipsoid, obovoid or subglobose, obtuse, apiculate, 6-9 x 5-7 x (2 + 3.5)mm.

K1, north of 3° N; 750-850m; rainfall about 350mm.

Acacia-Commiphora bushland.

Angule (BOR), Hungul (SOM).

21. *Commiphora* sp. B

Spiny tree c 3m tall, the twigs and spines very dark, bark with pale brown exfoliations, greenish beneath. Leaves all 3-foliolate, the leaflets suborbicular, 10-15mm in diameter, petiole up to 20mm long. Fruit stalk 4mm long. Fruit a flattened spheroid 9 x 8 x (2 + 3)mm. Pericarp 2-valved. Pseudaril 4-armed. Stone carunculate, the sterile cell strongly humped.

K1; at 04°10'N, 40°48'E; rainfall about 350mm.

In *Acacia-Commiphora* woodland on limestone slopes at 780m (*Gilbert & Thulin 1521*).

Resembles *C. danduensis* but the fruit is very different.

SECTION D AFRICANAE**22. *Commiphora danduensis* Gillett ined.**

Spiny tree 4-5m tall with a well-defined trunk of c 1m; glabrous; branches sagging to ground level at their tips; outer bark yellowish, flaking off from the greenish underbark; slash whitish, exudate gummy, hardly scented. Petiole 10-30mm long, about as long as the cuneate-obovate terminal leaflet which is about as broad as long, with 7-8 well-defined teeth on each side, and about twice as long as the suborbicular lateral leaflets. Flowers precocious, in dense clusters, envel-

oped at the base by a pair of brown bracts united for half their length to form a bilobed cup. Petals about 5.5mm long. Fruit sessile or on a stalk under 2mm long, ellipsoid, c. $9.5 \times 6.5 \times (2.5 + 4)$ mm; pseudaril obscure, apparently forming a very thin layer over the whole of the carunculate stone; sterile cell of stone slightly convex, not ridged or humped.

K1; 450-850m; rainfall about 250-350mm.

Acacia-Commiphora open woodland or bushland on sloping ground.

Saje, Sije (BOR), Ross, Sori (SOM).

23. *Commiphora samharensis* Schweinf.

ssp. *terebinthina* (Vollesen) Gillett

(*C. campestris* and *C. pteleifolia* of KTS p.p.)

Spiny tree up to 6 (9)m tall; glabrous; trunk grey or yellowish brown, the outer bark peeling off in very small curved flakes; slash showing red or pink layers; exudate copious, clear, very fluid, strongly resin-scented; twigs dark purplish, often rather zigzag. Petiole (about) as long as the terminal leaflet which is elliptic or suborbicular, usually shortly acuminate, base suddenly attenuate, 25-100 (-120) by 20-70mm, slightly to 4 times larger than the lateral leaflets; leaflet margin entire, undulate, or rarely irregularly crenate-serrate. Flowers dark red, usually precocious, the males clustered at the tip of short shoots in 5-12mm long several-flowered cymes; females in 1-2-flowered shorter cymes, petals 5-6mm long. Fruit stalk 2-5 (13)mm long; drupe obliquely obovoid, rounded or truncate at the apex, c. $8 \times 7 \times (3.5 + 3.5)$ mm; pseudaril completely covering the the rugulose very thick-walled stone; sterile cell of stone broadly humped distally.

K123467; 60-1700m; rainfall 300-700mm.

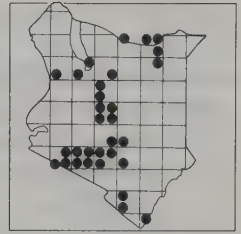
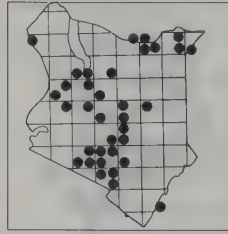
Acacia-Commiphora open woodland and bushland, and at the edges of bushed grassland.

Sanga-Igu, Hames-dirah (BOR), Lachimi (SAM), Kuru (SOM).

24. *Commiphora schimperi* (O. Berg) Engl.

(*C. buraensis* Engl., *C. trothae* Engl.)

Spiny shrub or tree 2-6m tall; trunk cylindrical, outer bark peeling in dull yellow or grey curved flakes from the green underbark; slash pale or reddish, smooth; exudate sometimes scented, producing some gum resin. Leaves often with a few long golden hairs at the top of the petiole, otherwise, like the rest of the plant, glabrous; petiole about as long as the terminal leaflet but some-



Commiphora samharensis *Commiphora schimperi*

times in short-shoot leaves much longer, or in long shoot leaves much shorter; terminal leaflet obovate or rhomboid, basally cuneate-attenuate, apically rounded or pointed, 9-35 by 8-22mm; lateral leaflets rather similar, about half as long. Flowers greenish yellow, or the calyx reddish, precocious in small dense cymes; pedicels c 1mm; petals 4-5mm long. Fruit on a 1mm stalk, flattened ovoid or ellipsoid, usually clearly beaked (occasionally acute), c. 9-12 (incl. 3-5mm beak) $\times 6 \times (1.5 + 4)$ mm; pseudaril surrounding the whole rather rugulose stone; sterile cell and sutures of stone ridged so that when viewed from above it seems to have 3 sharp and one rounded angles.

K123467; 430-1890m; rainfall 450-700mm.

Bushed grassland and *Acacia-Commiphora* bushland. This species varies greatly in leaf shape and fruit size; it has, however, not yet proved possible to distinguish recognizable varieties.

Masakaiya (BQR), Mutungu (KAM), Lachimi (SAM), Hargoi, Horgoi (SOM).

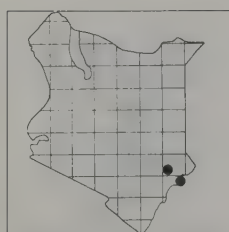
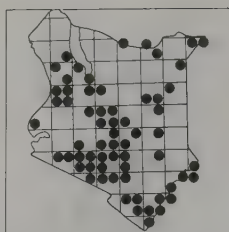
25. *Commiphora obovata* Chiov. Map next page

Spiny shrub or tree 0.5-3m tall with intricate branches; glabrous; bark grey; exudate slightly scented. Leaves coriaceous, heterotrifoliate; petiole 2-5mm long, always much shorter than the terminal leaflet; lateral leaflets elliptic-orbicular, entire or with a few broad teeth, sometimes caducous, 1-9mm long; terminal leaflet elliptic-obovate with 5-7 crenate serrations on each side or almost entire, 15-30mm long. Flowers unknown. Fruit on a c. 1mm long stalk, asymmetrically globose or ellipsoid, $9-12 \times 7.5 \times (3-4 + 4-6)$ mm; pseudaril almost wholly covering the black rugose stone or with 4 broad very irregular teeth in its distal third; sterile cell of stone distally humped.

K7; 50-100m; rainfall 300-400mm.

At the landward margin of interrupted semi-evergreen coastal bushland.

Differs from *C. africana* in being totally glabrous,

*Commiphora obovata**Commiphora africana*

from *C. schimperi* in its globose, unbeaked fruit and from *C. lindensis* in its pseudaril and broader lateral leaflets.

26. *Commiphora africana* (A. Rich.) Engl.

[*C. pilosa* (Engl.) Engl.]

Spiny shrub or tree up to 8 or 10m tall; trunk cylindrical, usually beset from near the base with horizontal spiny branches; bark peeling in shiny reddish brown or grey scrolls; slash mottled red, granular; exudate milky, slightly scented, producing a hard gummy resin; young twigs pubescent, later glabrescent. Leaves never completely glabrous; all leaflets crenate-serrate, the laterals sometimes, especially on long-shoots, much shorter than the terminal; petiole 3-5mm long on long-shoots (less than 1/10 as long as the terminal leaflet) up to 22mm on short-shoots. Flowers red, precocious, in short crowded cymes on pedicels up to 2mm long; petals glabrous, 5-7mm long. Fruit oblong-elliptic or obovoid, rounded at apex, but with a short apiculus; pseudaril thin, almost completely covering the rugose stone, but sometimes showing a tendency to divide into 4 broad teeth toward the tip; sterile cell distally humped.

Mbambara (SWA), Hames, Amess (BOR), (H)ammeesa (GAB), Kitungu, Mutungu (KAM), Arupien, Arupiny (LUO), Chotwa (MAR), Komper (ORM), Icheni-Nzito, Lcheningiro (SAM), Dabba'Un'Un (var. *tubuk*), Hammes sagara (SOM), Mwangari (TAI), Ekadeli (TUR).

Key to varieties:

1. Calyx and pedicel pubescent b. var. *rubriflora*
- * Calyx and pedicel glabrous 2
2. Hairs on petiole numerous, 0.1-0.2mm long, curved so that their upper part is horizontal or points downward; hairs on leaf blade sparse and almost entirely confined to veins
- d. var. *glauclidula*
- * Hairs stiffly erect and usually 0.2-0.4mm long,

both on the petiole and on the leaf blade where they are not confined to the veins 3

3. Central leaflet usually with 3-5 broad lobes on each side, the longest lateral veins or pair of veins much longer than the others, leaf base spatulate with deeply concave edges above the narrow extreme base; leaf apex more or less truncate or retuse; fruit usually under 8mm in diameter e. var. *tubuk*

- * Central leaflet with more than 7 teeth on each side, the largest lateral vein or pair of veins not markedly longer than the others, leaf base more or less cuneate with straight sides; leaf apex rounded or acute; fruit usually more than 8mm in diameter 4

4. Robust plant, leaves large, the central leaflet usually over 5cm long, coriaceous, coloured a pale olive green; veins on mature leaves very prominent below, the midrib channeled in its basal part c. var. *oblongifoliolata*

- * Less robust, the central leaflet usually under 5cm long, not or hardly coriaceous, greyish green, veins less prominent below, the midrib hardly channeled a. var. *africana*

- 26a var. *africana*

The most widespread variety.

K13467; 5-1780m; rainfall 250-800mm.

Bushed grassland, *Acacia-Commiphora* bushland and coastal thickets.

- 26b var. *rubriflora* (Engl.) Wild

On account of the pubescent calyx this has been confused with *C. confusa*.

K234567; 640-2070m; rainfall 400-850mm.

Bushed grassland.

- 26c var. *oblongifoliolata* (Engl.) Gillett

Bark often cracking into oblong segments. Fruit up to 12-14mm long.

K1467; 20-1890m; rainfall 500-800mm.

Bushed grassland and *Acacia-Commiphora* bushland.

- 26d var. *glauclidula* (Engl.) Gillett

Shrub 2-7m tall. Central leaflet to 5 by 3cm. Fruit stalk 2-6mm, longer than usual for this species.

K467; 1-1780m; rainfall 400-800mm.

Bushed grassland, *Acacia-Commiphora* bushland and, less often, in coastal thickets.

- 26e var. *tubuk* (Sprague) Gillett

Shrub to 3m tall. Branchlets slender, hardly more than 1mm thick. Petiole often as long as or longer than the

terminal leaflet which is 1-2cm long and more than half as wide.

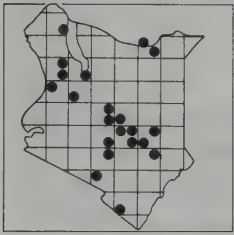
K1267; 10-1050m; rainfall 200-400 m.

Dry open *Acacia-Commiphora* bushland.

Note: Fig. 17a in KTS represents *C. holtziana* not *C. africana*.

27. *Commiphora confusa* Vollesen

Shrub or small tree up to 5 (-7)m tall, nearly always spiny; trunk cylindrical, bark yellowish or brown, peeling tardily in small irregular papery flakes; slash pink or red; exudate not scented; young twigs pubescent. Leaves pubescent, the central leaflet usually narrowly obovate, very often bullate, 5-45 by 3-25mm, with about 15 small teeth on each side, 3-5 times as long as the broadly obovate lateral leaflets. Flowers yellow, appearing with the leaves, the males in 7-12-flowered clusters, the 0-1mm peduncles, the 1-



Commiphora confusa

3mm pedicels and the calyx puberulent; petals 4-5mm long, puberulent towards the tip; female flowers solitary or in 2-3 (-6) flowered fascicles. Fruit subglobose or ellipsoid, 8-10 x 7-8 x (1.5 + 3.5)mm, sometimes sparsely pilose or with scattered tufts of hair; pseudaril with 4 broad irregular lobes; stone corrugated, the sterile cell more or less flat or slightly ridged.

K12467; 150-1300m; rainfall 300-700mm.

Acacia-Commiphora bushland.

Hamesa, Tichacho (BOR), Kilchacho (ORM), Hajola (SOM).

Note. Often confused with *C. africana*.

KEY 4 SECTIONS LATIFOLIOLATAE, ARILLOPSIDIUM & CILIATAE

1. Leaflets 3, rarely 5 2
- * Leaflets 5 or more (rarely a few leaves 3-foliolate) 11
2. Pericarp not markedly fleshy (under 1.2mm thick); twigs not especially stout; pseudaril nearly reaching to the top of the stone, either

with 4 arms or (in *C. ciliata*) with 2 broad facial lobes 3

- * Pericarp when fresh markedly fleshy (over 1.2mm thick) twigs stout; pseudaril a thick fleshy shallowly lobed cup confined (except in *C. mildbraedii*) to the basal third of the stone; fruit pubescent or puberulous, over 12mm long when fresh 10

3. Leaflet margins entire or with <5 vague crenations on each side 4

- * Leaflet margins serrate, with > 20 small teeth on each side; central leaflet usually > 6cm long

33. *C. eminii* ssp. *trifoliolata*

4. Leaflet margins glabrous, or with hairs < 0.3mm long 5

- * Leaflet margins densely fringed with hairs 0.5-1.3mm long 48. *C. ciliata*

5. Calyx glabrous; leaves glabrous or with sparse short hairs 6

- * Calyx pubescent or hispid; leaves not completely glabrous 8

6. Male inflorescence several-flowered, > 6mm long 7

- * Male inflorescences 1-2-flowered, < 6mm long, bracteoles linear, calyx lobes triangular-acuminate, shorter than the combined tube and receptacle 51. *C. sp. 'C'*

7. Bracteoles narrowly triangular, 2-3 x as long as wide, inflorescence almost black, calyx lobes ovate-triangular, about as long as the tube, leaves glabrous; fruit 10 x 8 x 7 mm 28. *C. erosa*

- * Bracteoles linear, many times as long as wide, inflorescence reddish-yellow; calyx lobes elliptic-triangular, twice as long as the tube; fruit ≈ 13 x 9 x 8mm 31. *C. mildbraedii*

8. Trunk distinctly angular; leaves glaucous; hairs on calyx erect, 0.2mm long; exudate not smelling of turpentine; fruit ellipsoid, ≈ 13 x 9 x 8mm 31. *C. mildbraedii*

- * Trunk not angular, leaves not glaucous, hairs on calyx shorter 9

9. Exudate smelling of turpentine, fruit ellipsoid, ≈ 12 x 8 x 6mm; stone smooth 30. *C. cyclophylla*

- * Exudate not smelling of turpentine; fruit subglobose, ≈ 10 x 9 x 9mm; stone rugose, pitted 29. *C. sphaerocarpa*

10. Terminal leaflet broadly cuneate-spathulate, usually truncate and retuse and toothed/crenate near the apex, widest well above the middle, pubescent with hairs 0.2-0.3mm long

35. *C. edulis* ssp. *holosericeus*

- * Terminal leaflet elliptic with entire margins, widest near the middle, glabrescent or pubescent with hairs about 0.1mm long

36. *C. guidotii*

11. Lowermost lateral leaflets usually < 3cm long, distinctly toothed **12**

- * Lowermost lateral leaflets nearly always > 3cm long, or if shorter then not toothed **13**

12. Leaflets 3-7, pubescent with hairs 0.2-0.3mm long; terminal leaflet cuneate-spathulate, fruit stalk 1.4mm long **35. *C. edulis* ssp. *holosericea***

- * Leaflets (5) 7-11 (-13), subglabrous, terminal leaflet truncate at base, fruit stalk 7-18mm long

34. *C. longipedicellata*

13. Pericarp \approx 1mm thick, not very succulent, pseudaril 4-armed **14**

- * Pericarp \approx 2mm thick, very succulent, pseudaril cupular with very short broad lobes or with a single very long lobe **16**

14. Lateral leaflets of mature leaves > 5cm long, with numerous small teeth; hairs, if present, stiff and \approx erect, fruit 10-13mm long, globose or ellipsoid, less than 20 % longer than wide

33. *C. eminii* ssp. *zimmermannii*

- * Lateral leaflets < 5cm long, their margins entire or with 5-7 faint and irregular teeth on each side **15**

15. Leaflets 3-5 (7-9), thin and delicate, pointed at base (basal angle \approx 50 °), fruit ellipsoid, 13-14mm long, 30-50 % longer than wide

31. *C. mildbraedii*

- * Leaflets 7-9 (-13), tougher, sub-leathery, blunter at base (angle 90-120°), fruit subglobose or about 10% longer than wide, 9-12mm long

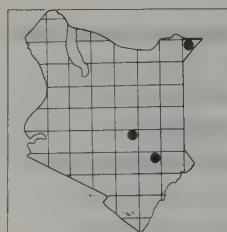
32. *C. molliss*

16. Leaves and fruit pubescent or with hairs 0.2-0.3mm long **35. *C. edulis* ssp. *boiviniana***

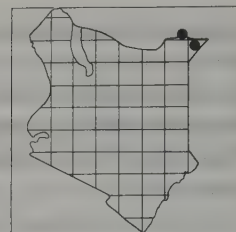
- * Leaves glabrous or nearly so with hairs \approx 0.1mm long **36. *C. guidotii***

17. Leaflets rarely as many as 7; male inflorescence < 6cm long **36. *C. guidotii***

- * Leaflets usually 7-9, male inflorescence > 6cm long **18**



Commiphora erosa



Commiphora cyclophylla

18. Bark grey, not peeling in flakes; male pedicels 0-1mm, female pedicels 0-1 (-3)mm long; male inflorescence pendant, -60cm long, female inflorescence 5-13cm long; pseudaril cupular, very shallowly lobed **37. *C. erlangeriana***

- * Bark peeling in yellowish or brownish parchment-like flakes, male pedicels > 4mm, female pedicels 3-10mm long **19**

19. Petioles persistent, young stems strongly fluted; fruiting inflorescence spreading, -14cm long; pseudaril drawn out into a single large lobe over the face of the larger cell almost to the tip of the stone **38. *C. unilobata***

- * Petiole not persistent; young stems slightly ridged; fruiting inflorescence pendent, usually > 16cm long; pseudaril shallowly lobed, less than half as long as the stone **39. *C. zanzibarica***

28. *Commiphora erosa* Vollesen

Shrub or slender tree 2-5m tall; bark smooth, grey; young branches ridged; leaves all 3-foliolate, thin, delicate, rather translucent, drying yellowish green, usually borne singly on long-shoots; petiole 1/3-4/5 as long as the terminal leaflet which is entire, elliptic-ovate or obovate, broadly acuminate, drawn out below into a very narrow petiole-like base, 15-70 by 10-55mm; lateral leaflets similar, 1/3-2/3 as large. Flowers dark red, appearing with the leaves, the males 7-9 together in pedunculate cymes, peduncles 8-28mm, pedicels 2-4mm; petals c 4mm long; female inflorescences shorter, 1-2-flowered. Fruit on a 4-6mm stalk, asymmetrically oblong-ellipsoid, c 10 x 8 x (3+4)mm, the pointed persistent style base deflected towards the sterile cell; pseudaril with sutural arms as long as the black, smooth, oblong stone; the fertile facial arm 3/4, the sterile cell facial arm 1/4 as long. K17; 90-400m; rainfall 230-300mm.

Acacia-Commiphora woodland on silty alluvium near Daua R. and Tana R.

29. *Commiphora sphaerocarpa* Chiov.

[*C. erosa* Vollesen p.p. as regards the fruit]

Resembles *C. erosa*, but stouter, the leaves and inflorescence not always glabrous, the calyx pubescent and up to 3mm long with narrowly triangular lobes. Fruit subglobose, about 10mm across, the stone with a curiously pitted surface and walls about 1mm thick. Not yet found in Kenya but should occur near Mandera, in open bushland on limestone.

30. *Commiphora cyclophylla* Chiov.

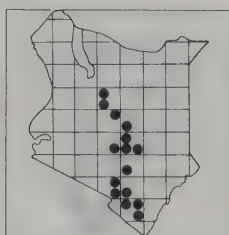
Tree up to 5 (-7)m; trunk cylindrical; bark smooth, grey; exudate strongly resin-scented; young branches somewhat zigzag. Leaves all 3-foliolate, glabrous or puberulent; petiole 1/2-1 x as long as the central leaflet which is obovate, with the apex truncate or rounded, base broadly cuneate or rather attenuate, 20-30mm long and nearly as wide, margins entire; lateral leaflets slightly smaller. Flowers as yet unknown, in clusters at the tips of shoots. Fruit on a 12-25mm long stalk, sometimes with 2-3 fruits on a common peduncle. Fruiting calyx puberulous, 2-3mm long. Drupe glabrous, flattened ellipsoid, 12-14 x 9-10 x (3+4-6)mm; pseudaril with 4 rather broad arms reaching almost to the tip of the smooth 10 x 8 x (2+5)mm stone. K1; 330-430m; rainfall about 230mm.

Acacia-Commiphora bushland.

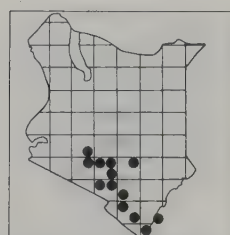
31. *Commiphora mildbraedii* Engl.

(*C. riparia* Engl., *C. staphyleifolia* sensu KTS)

Tree up to 12m; crown rounded with the lowest branches at least 2m from the ground; trunk angled, not straight; bark reddish brown, flaking off sparingly; slash smooth, scentless. Leaves 3-5 (-9) foliolate, rather thin and soft in texture, at first softly and sparsely appressed silky pilose, later glabrescent; petiole more than half as long as the terminal leaflet; leaflets oblong-elliptic or broadly oblanceolate, base cuneate, apex acute and rather acuminate, 20-40 (50) by 15-25mm, entire, the laterals almost to quite as large as the terminal. Flowers pale yellow, appearing with the leaves, the males in 8-10-flowered subumbellate cymes on 2-35mm long peduncles; pedicels 2-8mm, bracts linear and caducous; calyx pilose, about 2mm; petals sparsely pubescent, linear, 4-5mm long; female flowers smaller, in 4-7-flowered cymes. Fruits single on 10-45mm long stalks or 2-3 together on a common peduncle; drupe glabrous or sparsely pubes-



Commiphora mildbraedii



Commiphora eminii

cent, asymmetrically ellipsoid, 13-14 x 8-11 x (3+5)mm; stone smooth, black, with gently convex faces 12 x 9 x (3+4.5)mm.

K1467; 450-1650m; rainfall 500-750mm.

Acacia-Commiphora bushland, especially in rocky places; fine specimens grow in Kibwezi forest, together with *C. baluensis*. Ngongwa (KAM).

32. *Commiphora mollis* (Oliv.) Engl.

Small spreading tree close to *C. mildbraedii*.

K6; 1000-1500m; rainfall 500-900mm.

Acacia-Commiphora woodland on eluvial soil. Hollis 25 from 'Masailand' (before the frontier was delimited, so possibly in Tanzania)

33a. *Commiphora eminii* Engl.

ssp. *zimmermannii* (Engl.) Gillett

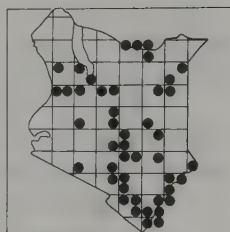
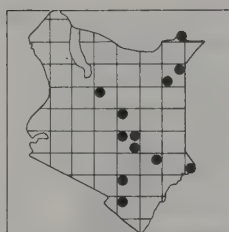
(*C. zimmermannii* Engl., *C. missionis* Chiov.)

Tree 5-18m; bark smooth, grey. Leaves coriaceous, (3-)5-7 (-11) foliolate, drying brownish green, sparsely strigose-pilose, at least near the base of the midrib beneath; leaflets elliptic-oblong, base cuneate, apex acuminate, veins prominent below, 60-90 by 25-45mm, minutely serrate with about 20 teeth on each side; laterals about as large as the terminal. Flowers greenish yellow, appearing with the leaves, in axillary cymes; male peduncles up to 90mm, females up to 40mm; pedicels up to 4mm; bracts sometimes foliaceous; petals glabrous, 3-4mm long. Fruit glabrous, (flattened) globose or ellipsoid, 11-14 x 9-12 x (4+5-8)mm; sutural arms of pseudaril as long as the stone, facial arms shorter; stone smooth, its sterile cell gently convex.

K467; 5-1750m; rainfall 600-1000mm.

Dry evergreen or semi-evergreen forest.

Mutula, Mutungu (KAM), Mukungugu, Mutongoga (KIK), Ol-ripande (MAA), Mutungugu, Mutunguu (MER). The Kikuyu often plant this as a hedge, and as a support for yams. Formerly used to make sacred



Commiphora longipedicellata *Commiphora edulis*

shrines.

33b. *C. eminii* ssp. *trifoliolata* (Engl.) Gillett

Resembles a large-leaved form of ssp. *zimmermannii* but the leaves are trifoliolate (rarely with a few 5-foliolate).

K47; 920-1800m; rainfall 700-900mm.

Confined to a few rocky hills in the Voi area.

SECTION Arillopsidium (nos. 33-38)

34. *C. longipedicellata* Vollesen

(*C. engleri* sensu KTS)

Spreading shrub or tree to 5 (-8)m; trunk short, the branches often sagging; bark yellowish or greyish, peeling in small curved flakes from the green underbark. Leaves (3-) 5-13-foliolate, pubescent or nearly glabrous, up to 13cm long including a petiole of 5-40mm and a terminal leaflet of up to 20mm long; leaflets orbicular, elliptic or obovate, base rounded or broadly cuneate, apex truncate or retuse (rarely acuminate), 10-30 by 7-23mm, the margins crenate-serrate, the basal pair smallest; leaf rachis often persistent after leaflets have fallen. Male inflorescences sub-umbelliform, peduncle 2-10mm, pedicels 15-35mm, flowers about 4.5mm long; female flowers solitary on 5-12mm long pedicels. Fruit glabrous, shiny, 13-20mm (including a 2-3mm beak) x 9-15 x (3-4 + 5-6)mm; pericarp 2.5-4mm thick when fresh; pseudaril a basal saucer about 8mm across, 1-2mm deep; stone with 5-7 longitudinal ridges on each face, curiously asymmetrical, the fertile cell enlarged basally, the sterile cell apically.

K147; 10-900m; rainfall 200-550mm.

Acacia-Commiphora bushland on eluvial soil.

Helta (SOM).

35a. *Commiphora edulis* (Kl.) Engl.

ssp. *boiviniana* (Engl.) Gillett

(*C. boiviniana* Engl., *C. scaberula* Engl.)

Shrub 4-7m branching from the base; bark pale grey,

smooth; young shoots rather thick, densely pubescent. Leaves 5-9 (-11)-foliolate, densely pubescent below, more sparsely so above, up to 24cm long including a petiole to 8cm long and a terminal leaflet up to 7cm long; leaflets usually crenate-serrate towards the tip, the laterals elliptic-oblong, more or less pointed, the terminal usually cuneate-obovate and broader than the others. Male inflorescence a narrow interrupted, pubescent, paniculate cyme up to 15 (28)cm long, the females much shorter, flowers greenish yellow, about 5mm long. Fruit stalk 1-2cm, occasionally 2-3 fruits on one peduncle. Fruit pubescent, about 20 x 17 x (7+8)mm; pericarp about 3mm thick when fresh; pseudaril a fleshy basal cup with 4 broadly triangular lobes; stone ellipsoid, white, smooth, about 15 x 9 x (2 + 3-4)mm.

K123467; 1-500m (coast) and 800-1400m; rainfall 350-900mm.

Acacia-Commiphora bushland, often on rocky ground, at the coast in semi-evergreen bushland.

Mchongoma, Mwemaya-nguzo (SWA), Dakkidah, Dakkidaw (BOR), Munakwembe (DIG), Dakadaa (GAB), Mutula, Mukwembe (GIR), Dackdo (ORM), Laimai, Layamai (SAM), Dibirikh, Dabarrik (SOM). Note: near the coast this ssp. rarely has more than 7 leaflets, the terminal leaflet is much broader than the laterals, and very long male inflorescences occur. Inland the number of leaflets may be 11; the terminal leaflet resembles the laterals and male inflorescences tend to be shorter. The type of *C. scaberula* is an inland, and the type of *C. boiviniana* a coastal plant. There seems to be no clear distinction between the two forms.

35b. *C. edulis* ssp. *holosericea* (Engl.) Gillett

(*C. holosericea* Engl., *C. pilosissima* Engl., *C. boiviniana* sensu KTS p.p.)

Leaves on short-shoots 3-5-foliolate, on long shoots up to 7-foliolate; leaflets more or less serrate, the terminal usually larger than the others, apex truncate or retuse, nearly as broad as long, 3 (-5)cm broad. Male inflorescence not above 5cm long.

K1467; 100-1050m; rainfall 200-400mm.

Acacia-Commiphora bushland.

Extreme forms of this ssp., which grows in drier country, look very different from normal ssp. *boiviniana*; however, the areas of the two ssp. overlap, and numerous intermediates occur.

36. *Commiphora guidottii* Chiov.*(C. sessiliflora* Vollesen)

Shrub or small tree up to 5m; bark smooth, peeling in small yellowish flakes; young branches 4-8mm across. Leaves (1-)3(-5) foliolate on short-shoots, 3-5(-7) foliolate on long-shoots, glabrous, puberulous or pubescent, up to 21cm long including a petiole up to 9cm and a terminal leaflet up to 9cm long; leaflets entire, ovate, broadly elliptic or suborbicular, up to 11 by 8cm, covered with blisters above when mature. Flowers appearing with the leaves in interrupted subspicate panicles 3-5.5cm long. Fruit puberulous, about 13 x 11 x (4+5)mm.

Not yet found in Kenya but near Mandera on the Ethiopian side of the border; about 400m; rainfall about 230mm.

Open *Acacia-Commiphora* bushland on gypseous soils.

37. *Commiphora erlangeriana* Engl.*(C. retifolia* Chiov.)

Shrub or tree up to 4 (6)m. Leaves glabrous or sparsely puberulous, (3)5-9(-11) foliolate, up to 22cm long including a petiole of 3-6cm and a terminal leaflet of up to 5cm long; leaflets ovate to elliptic, entire, up to 8 by 5.5cm, apex acute or acuminate. Male inflorescence an extraordinary drooping panicle (15) 20-60cm long, the pedicels 0.1mm. Fruit grape-like, about 18 x 17 x (7+8)mm; pseudaril a bright red shallowly and broadly lobed cup.

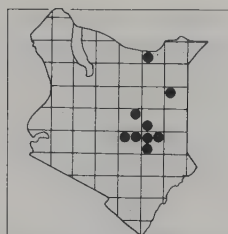
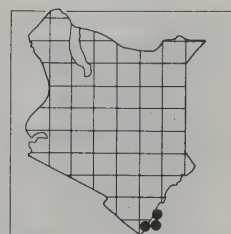
Not yet found in Kenya, but occurs near Mandera at about 400m; rainfall about 230mm.

Open *Acacia-Commiphora* bushland; usually on gypseous soils.

Note: the species called *erlangeriana* in KTS is *C. unilobata*.

38. *Commiphora unilobata* Gillett & Vollesen*(C. erlangeriana* sensu KTS)

Little-branched shrub or tree up to 3m; bark peeling in yellowish or dull orange sheets from the dark green underbark; young branches 5-15mm across, fluted. Leaves (5)7-9(11)-foliolate, glabrous or nearly so, up to 29cm long including a petiole of up to 8cm and a terminal leaflet up to 9cm long; petioles often persistent after the leaflets have fallen; leaflets thin, ovate or elliptic, entire or dentate, apex acute or acuminate, (2)4-8 by 1.5-4.5cm, the laterals about as big as the terminal. Flowers dark red, appearing with the leaves,

*Commiphora unilobata**Commiphora zanzibarica*

the males in narrow interrupted panicles (10) 15-30cm long, including a 4-8cm peduncle, branches up to 2(-4.5)cm, pedicels 0.5-1.5cm; female inflorescence 2-12cm including a 1-6cm peduncle and 0.3-1cm pedicels. Fruit glabrous, glossy, turgid, up to 26 x 22 x (10+11)mm with a 6mm thick pericarp; pseudaril a basal cup extended in a single long lobe to the top of the stone over the sterile cell; stone smooth, asymmetrically ovoid, about 15 x 11 x (5+6)mm.

K147; 700-1000m; rainfall 200-350mm.

Acacia-Commiphora bushland, chiefly on alluvium. Tokocho (ORM).

39. *Commiphora zanzibarica* (Baill.) Engl.

Tree up to 12m; bark smooth, grey, the outer layer peeling off in large straw-coloured pieces; young shoots fluted, 3-4mm across. Leaves 7-9 (11)-foliolate, glabrous or sparsely puberulous, up to 33cm long including a petiole of up to 11cm and a terminal leaflet up to 10cm long; leaflets oblong-elliptic, acuminate, up to 10 by 4.5cm. Flowers appearing with the leaves in narrow panicles up to 34cm long, the females almost as long as the males (pendulous when fruit is ripe). Fruit about 18 x 14 x (5+6)mm when fresh; pseudaril a shallowly lobed cup; stone smooth, gently convex, about 13 x 8.5 x (2.5 + 4.5)mm, often persistent when pericarp has been shed.

K7, south of 3°15'S; 2-15m; rainfall 900-1050mm.

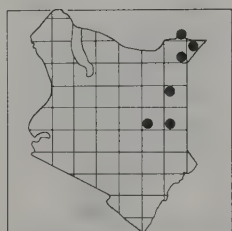
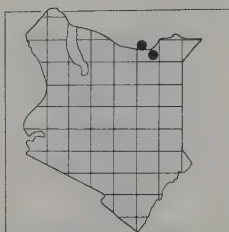
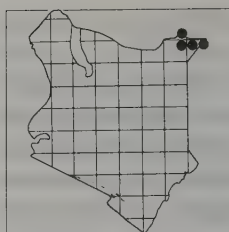
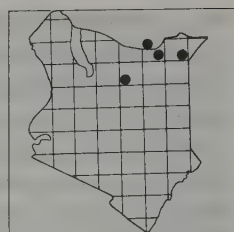
Evergreen thickets and forest margins on coral near the sea.

KEY 5 SECT. HILDEBRANDTIANAE

1. Stems weak, straggling or subscandent with longitudinal corky wings; leaves 3-foliolate; petiole over 2cm long; lateral leaflets strongly toothed, over 2cm long, with about 4 principal lateral veins on each side; flowers sessile; not spinose

40. *C. alaticaulis*

- * Stems erect, without longitudinal wings **2**

*Commiphora alaticaulis**Commiphora sarandensis**Commiphora corrugata**Commiphora ogadensis*

2. Leaves always 3-foliate; lateral leaflets not over 12mm long, with about 2 principal veins and not more than 7 teeth on each side 3

- * Leaves 3-5 (7)-foliate; lateral leaflets often over 12mm long, with about 4 principal lateral veins and more than 9 teeth on each side; flowers sessile; not spinose 4

3. ¹⁸ Usually spinose; terminal leaflet several times as long as the lateral leaflets, usually bullate, indumentum dense; pedicels 1-3mm long

27. *C. confusa*

- * Not spinose; terminal leaflet less than twice as long as the lateral leaflets, not bullate, indumentum rather sparse; flowers sessile

41. *C. sarandensis* ssp. *moyaleensis*

4. Leaves markedly corrugated; shrub or small tree 1.5-4m tall; bark of trunk smooth, grey; penultimate branches more or less straight

42. *C. corrugata*

- * Leaves flat; tree up to 7m tall; outer bark white, peeling in small scrolls; penultimate branches rather zigzag

43. *C. ogadensis*

40. *Commiphora alaticaulis* Gillett & Vollesen

Shrub to 5m, usually intertwined in other bushes and subscandent, often heavily browsed when free-standing; stems mostly with corky longitudinal wings; bark smooth, grey, not peeling, bluish grey when young; branchlets 1.5-5mm across, 5-angled. Leaves 3-foliate, puberulous to tomentose beneath, more sparsely so above; petiole 1-6.5cm; laterals elliptic or round, 15-65 by 10-55mm; terminal leaflet spatulate-obovate, 25-75 by 17-65mm, margins dentate or crenate. Flowers yellow or yellowish green, sessile, precocious or appearing with young leaves; calyx 3mm long, glabrous except for a woolly margin; petals 5-6mm long, densely appressed-pilose outside. Fruit glabrous, flattened ovoid, rather acute, 10-12 x 6-8 x (2+3)mm; pseudaril with 2 narrow facial arms and no sutural arms; stone

slightly granulose, 8 x 5.5 x (1.5 + 3)mm, the sterile cell flattened, slightly convex.

K1, east of 39° E; 160-700m; rainfall 200-300mm.

Open *Acacia-Commiphora* bushland.

41. *Commiphora sarandensis* B.D. Burt
ssp. *moyaleensis* Gillett

Loosely branched straggling shrub up to 3m; bark silvery grey; young twigs slender; leaves 3-foliate, more or less pubescent; petiole 1/4 to as long as the central leaflet; laterals round, ovate or elliptic, 1/4-4/5 as large as the terminal, which is cuneate-obovate and up to 20 by 15mm; margins strongly crenate-serrate. Flowers sessile, crowded among linear pilose bracts at the leaf bases; calyx pilose, about 1.5mm long; petals lanceolate, appressed pilose outside, about 4mm long. Fruit glabrous, ovoid, pointed, about 10 x 6 x (1.5 + 3)mm; pseudaril with 4 short triangular arms. K1; 750-800m; rainfall about 350mm.

Acacia-Commiphora bushland near the Ethiopian border.

Hamesa-Niata (BOR), Wongasa (SOM). Root swellings chewed against thirst.

42. *Commiphora corrugata* Gillett & Vollesen

Shrub or tree to 5m; bark grey; young twigs 2-5mm across, yellowish brown, densely tomentose. Leaves (1) 3-5 (7)-foliate; tomentose or woolly; petiole 5-27mm; petiole and rachis sometimes narrowly winged; leaflets bullate, crenate-serrate, lower laterals elliptic-oblong, up to 20 by 14mm; upper leaflets larger, cuneate-obovate. Flowers yellow, sessile, appearing with the leaves, the males up to 12 together in fascicles, the females single or paired; calyx pubescent, 2-3mm long; petals linear-elliptic, pubescent outside, 3.5-5mm long; stamens 4 only. Fruit ovoid, sparsely pilose, later glabrescent, 9-11 x 7-9 x (2.5 + 3.5)mm; pseudaril with 2 broadly triangular facial lobes and no sutural lobes.

K1 (Mandera district); 300-700m; rainfall 250-350mm.
Acacia-Commiphora open bushland on limestone slopes.

Ilka buss (BOR), Gundad (SOM).

43. *Commiphora ogadensis* Chiov.

(*C. hildebrandtii* sensu KTS)

Tree 4-10m with well-defined but crooked trunk (15-20cm DBH); outer bark peeling in small yellowish scrolls; twigs somewhat zigzag, fluted. Leaves puberulous or pubescent, 3-7 (-9)-foliolate, the rachis (with the 1-3cm petiole) up to 6cm long; leaflets elliptic-oblong, coarsely crenate-serrate, up to 5 by 3cm in 3-foliolate leaves, to 3 by 1cm in 5-7-foliolate leaves. Flowers greenish-yellow, appearing before or with the leaves; calyx puberulous, 2mm long; petals pubescent outside, 4-5mm long. Fruit glabrous, ovoid-ellipsoid, about 8 x 7 x (2 + 3.5)mm; pseudaril with 4 triangular lobes.

K1; 500-1000m; rainfall 350-500mm.

Acacia-Commiphora bushland on eluvial soils, usually near mountains.

Hagarsu Ferda, Sichacho (BOR), Hagar Sower (SOM).
 Yields gum. Wood used for milk containers.

KEY 6 SECT. HEMPRICHIA

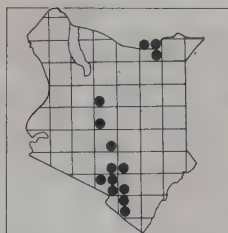
1. Leaflets with 12-22 sharp teeth on each side, the terminal up to 9cm, the lateral up to 6cm long; peduncle of male inflorescence 20-50mm long; fruit 11-13mm long **44. *C. baluensis***

- * Leaflets with fewer than 12 teeth on each side, the terminal up to 3.5cm, the lateral up to 3cm long; peduncle of male inflorescences under 13mm long; fruit under 12mm long **2**

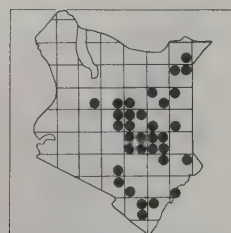
2. Terminal leaflet longer than wide, tapering gradually to the base; fruit over 8mm long, or, if less, plant very pubescent; branches not lying on the ground **3**

- * Terminal leaflet abruptly contracted into a narrow stalk-like basal part, the expanded part as broad as or broader than long; whole plant glabrous; lower branches often lying on the ground; fruit when dry 7-8mm long; peduncles under 5mm long **47. *C. pseudopaolii***

3. Leaves pubescent, the hairs on the veins beneath stiff, erect, 0.3-0.5mm long; inflorescence and calyx similarly pubescent; lateral leaflets usually with > 5 teeth **45. *C. holtziana***



Commiphora baluensis



Commiphora holtziana

- * Leaves, inflorescence and calyx glabrous or sparsely pubescent with hairs under 0.3mm long; lateral leaflets almost entire or with 2 or 3 teeth near the apex only

46. *C. kataf* ssp. *turkanensis*

44. *Commiphora baluensis* Engl.

Tree 6-20m (the tallest *Commiphora* in Kenya); trunk up to 35cm DBH; young twigs fluted, 2mm across. Leaves 3-5-foliolate, almost glabrous or pubescent; rachis, including a petiole of up to 7cm long, up to 10cm long; leaflets thin, with serrate margins (12-22 teeth per side), the laterals up to 6 by 4cm, the terminal up to 9 by 6cm. Flowers appearing with the young leaves in pedunculate cymes, the males 5-25 together on peduncles 25-50mm long, and pedicels up to 10mm; females 1-5 together on peduncles about 5 (-30)mm long with pedicels to 3 (-10)mm long. Calyx lobes about 1.6mm long, pubescent; petals oblong, 3 by 2mm, sparsely silky outside. Fruit on stalks 10-15mm long, sometimes 2-3 on a common peduncle, almost glabrous or sparsely pubescent, about 13 x 12 x (5+6)mm; stone a flattened ellipsoid, gently convex on both sides, about 8 x 7.5 x (2+3)mm.

K1467; 600-1600m; rainfall 450-800mm.

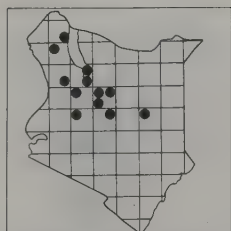
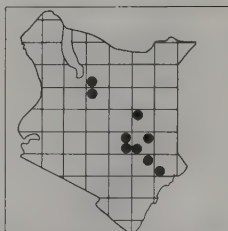
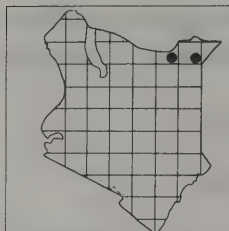
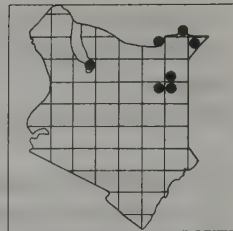
Deciduous woodland and dry forest, often on rocky ground (conspicuous near Kibwezi).

Hagarsu (BOR), Itula, Mutula (KAM), Hagar (SOM).

45a. *Commiphora holtziana* Engl. ssp. *holtziana*

(*C. africana* sensu KTS p.p., as to fig. 7a; *C. caerulea* sensu KTS p.p., *C. erythraea* sensu KTS p.p.)

Tree 3-6 (-10)m with definite trunk; young twigs, leaves and inflorescence pubescent. Leaves 3-foliolate (occasionally 5-foliolate on long-shoots), petiole up to 4cm long; leaflets crenate-serrate with less than 12 teeth per margin, the laterals 10-20 by 7-17mm, the terminal 20-35 by 12-25mm. Male flowers in groups

*Commiphora kataf**Commiphora pseudopaolii**Commiphora ciliata**Commiphora boranensis*

of subumbellate cymes, the peduncles 2-6mm, the pedicels 2-3mm long; petals 3mm long, sparsely pilose; female flowers usually single on 2-7mm stalks. Fruit sparsely puberulous about 10-10.5 x 8-9.5 x (3-4 + 4-4.5)mm.

K1467; 20-1100m; rainfall 220-630mm.

Acacia-Commiphora bushland, usually on well-drained soils.

Haggersu (BOR), Agarsu (GAB), Haggr-Ad (SOM), Mwagari (TAI).

45b. *C. holtziana* ssp. *microphylla* Gillett

Differs from ssp. *holtziana* chiefly in its smaller leaves and fruits. Tree 3-4m. Petiole less than 12mm long, lateral leaflets up to 8 by 6mm, terminal up to 10 by 7mm. Both male and female flowers solitary. Fruit puberulent, about 7-8 x 6 x (1.5+2)mm on a 2-6mm long stalk.

K17; 60-270m; rainfall 220-350mm.

Open *Acacia-Commiphora* bushland.

46. *Commiphora kataf* (Forssk.) Engl.

ssp. *turkanensis* Gillett

Spreading tree 2-6 (-10)m with short trunk. Leaves 3-foliolate (occasionally 5-foliolate on long-shoots), glabrous or slightly pubescent; petiole up to 30mm long; leaflets with 2-5 broad obtuse crenations in upper half; laterals round, elliptic or obliquely elliptic, up to 30 by 20mm; terminal obovate, apex rounded or truncate, up to 35 by 22mm. Male flowers 1-7 in pedunculate cymes, peduncles 3-11, pedicels 2-8mm; female flowers solitary (rarely paired). Fruit glabrous, about 10-10.5 x 7-9 x (2+3)mm when dry, on a 3-8mm stalk.

K123; (260-)590-1200(-1650)m; rainfall 300-500mm.

Open *Acacia-Commiphora* bushland on hill sides.

47. *Commiphora pseudopaolii* Gillett

(*C. paolii* sensu KTS)

Spreading tree up to 3 (-6)m, often wider than tall, the

lower branches often sagging onto the ground; trunk to 1.5m tall; young twigs fluted, 1-1.5mm across. Leaves glabrous or almost so, 3(-5)-foliolate on short-shoots, 3-5(-7) foliolate on long-shoots; petiole up to 35mm long, lateral leaflets round or elliptic-obovate, crenate-serrate above the middle, up to 11 by 10mm; terminal obovate or oblate with very narrow attenuate base, apex truncate or emarginate, up to 17 by 20mm. Inflorescences glabrous, appearing with the leaves. Fruit glabrous, about 7-8 x 6-7 x (2.5+3)mm, on a 4-11mm long stalk.

K17; 60-600m; rainfall 220-350mm

Open *Acacia-Commiphora* bushland, often on alluvium.

Hagersu (BOR), Hagarsu (ILW), Hagarsu (ORM), Agar, Haggr, Lailipai (SAM). The gum is used against snakebite.

SECTION CILIATAE

48. *Commiphora ciliata* Vollesen

RARE

Unarmed tree to 6m; trunk dark grey, short, up to 15cm across; slash orange, gritty; sap sometimes resin-scented; young twigs reddish brown, fluted, pilose and glandular. Leaves 3-foliolate, turning dark red when old; petiole 5-40mm long; leaflets entire, elliptic-obovate, pilose on the margins and the main veins beneath, pubescent elsewhere; laterals 10-45 (-55) by 7-40mm, terminal 15-65 by 10-40 (-55)mm. Flowers dark red, appearing with the leaves; inflorescences red, glandular, the male 1-5-flowered on a 2-5 (-35)mm peduncle and up to 20mm long pedicels, the female 1-flowered, peduncle about 1mm, pedicel to 10mm long; petals 4-6.5mm long; stamens 4 only. Fruit ellipsoid-obovoid, glabrous, 11-13 x 6-8mm; pericarp 4-valved; pseudaril with 2 broad facial lobes. K1, north of 3° N, east of 39° E; 660-780m; rainfall 300-400mm.

Acacia-Commiphora bushland.



Dombeya rotundifolia, pg 164

JOY





JOY





JOY







JOY

Commiphora unilobata, pg 399

KEY 7 SECTION **OPOBALSAMAE**

1. Leaflets 3-5, usually crenate or crenate-serrate; almost glabrous except for minute crisped hairs on the petiole and midrib

49. *C. boranensis*

- * Leaflets 5-7, margins entire or almost so, pubescent

50. *C. velutina***49. *Commiphora boranensis* Vollesen**

(*C. gileadensis* sensu KTS)

Shrub or irregular tree to 6m; outer bark peeling in strong blackish scrolls from the copper-coloured underbark; sap very aromatic; leaves 3-5-foliolate, glabrous except for petiole and midrib; petiole 5-25mm long; leaflets elliptic or narrowly obovate, crenate or crenate-serrate (rarely subentire), up to 25 by 15mm. Flowers dull yellow, usually precocious, the males 6-8 together in short cymes, the females single or in pairs; calyx about 1.3mm long and 1.7mm wide, petals about 3 by 1mm, stamens 8. Fruit on a 1-3mm stalk, ovoid or ellipsoid, apiculate, 6-8 x 5-6 x (1.5+3)mm, pseudaril very thin, covering most of the stone.

K1; 230-1300m; rainfall 250-350mm.

Acacia-Commiphora bushland.

Riga-keiro (BOR), Dakellah, Ilk'aldees (SOM).

50. *Commiphora velutina* Chiov.

Shrub 2-4m; bark grey; sap resin-scented. Leaves puberulous, velvety pubescent or hispidulous, turning red or orange before falling, (3-) 5-9-foliolate; rachis winged except at the base, up to 35mm long including the 3-10mm petiole; leaflets rounded at apex, margins entire or slightly undulate, the laterals elliptic-oblong, 3-15 by 3-7mm, terminal narrowly obovate, 6-17 by 3-9mm. Flowers yellow, appearing with the leaves in clusters, peduncles and pedicels together less than 2mm long; calyx pubescent, 1mm long, 1.7mm wide; petals pubescent outside, about 1.7 by 0.5mm. Fruit single or paired on 1-2mm stalks, dark brown with 4 pale streaks, ovoid or ellipsoid, 6-7 x 3-5 x (1-2 + 1.5-3)mm; pseudaril with 4 narrowly triangular lobes.

K1, found once in Mandera Distr. at 3° 07' N, 40° 55' E; about 800m; rainfall about 230mm.

Acacia-Commiphora bushland on limestone.

Section unknown

51. *Commiphora* sp. *C* of FTEA

Unarmed tree 3-5m; trunk reddish-brown, branching low down; branches intricate, recurved, slender, brittle, somewhat ridged longitudinally. Leaves 3- (5-) foliolate, glabrous except for petiole and main veins; rachis 23-51mm long including the 10-35mm long petiole; leaflets sessile (laterals) or slightly stalked (terminal), margins entire or with up to 5 obscure crenations on each side of the apex, the laterals elliptic or elliptic-obovate, 14-25 by 8-16mm; terminal obovate, 25-50 by 15-25mm. Male flower buds single or in pairs, peduncle pinkish and some 3mm, pedicel 3mm; petals yellow. Female flowers and fruit unknown.

K1; 500-550m; rainfall about 250mm.

Lava flow edges, in open bushland or thickets; only known from the area between Marsabit and Laisamis.

Excluded species: *C. mombassensis* Engl., does not occur in Kenya (the confusion was due to a misreading of Mossambik!);

C. tomentosa Engl. is *Lannea rivaie*;

C. voense Engl. is *Platycelyphium voense*.

197. MELIACEAE

Leaves alternate, usually compound (except in *Turraea*); stipules absent. Inflorescences axillary; flowers mono- or bisexual, monoecious or dioecious, usually 5-merous. Stamens 8-10, partially united into a tube. Fruit a capsule or drupe.

- | | |
|--|---------------------------|
| 1. Leaves simple | 8. <i>Turraea</i> |
| * Leaves compound | 2 |
| 2. Leaves once-pinnate | 3 |
| * Leaves bipinnate | 5. <i>Melia</i> |
| 3. Leaves paripinnate (2 top leaflets) | 4 |
| * Leaves imparipinnate (1 top leaflets) | 6 |
| 4. Leaves with 10-16 leaflets; large tree of Kakamega Forest | 2. <i>Entandophragma</i> |
| * Leaves with 2-10 leaflets; central and coastal Kenya | 5 |
| 5. Leaflets 6-10 per leaf, asymmetrical at base. Moist forest species | 4. <i>Lovoa</i> |
| * Leaflets 2-6(8) per leaf, with symmetrical base. Species of coastal bush or mangrove | |
| | 9. <i>Xylocarpus</i> |
| 6. Leaflets with star-hairs | 3. <i>Lepidotrichilia</i> |
| * Leaflets glabrous or with simple hairs | 7 |
| 7. Leaflets opposite | 8 |
| * Leaflets alternate | 9 |
| 8. Petals 4-5mm long; fruit a drupe, round or nearly so | 1. <i>Ekebergia</i> |
| * Petals 7-15mm long, fruit a capsule, obovoid and 3-valved | 7. <i>Trichilia</i> |
| 9. Petals 4.5-6mm; fruit 2.5-5 by 2-4cm, warty-lobed | 6. <i>Pseudobersama</i> |
| * Petals 7-15mm; fruit 1.8-2.5 by 1.8-2.5cm, smooth | 7. <i>Trichilia</i> |

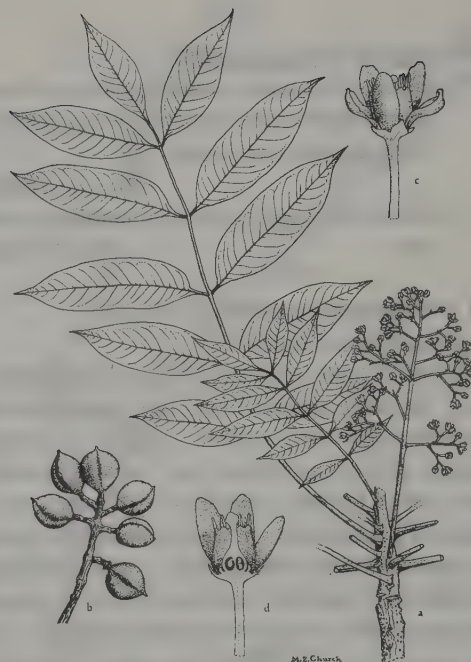
1. EKEBERGIA

Leaves imparipinnate. Flowers dioecious, but through remnants of the opposite sex quite alike, in axillary or extra-axillary cymose panicles. Fruit a drupe.

1. Apex of leaflets rounded 2. *E. benguelensis*
 * Apex of leaflets (sub) acuminate 1. *E. capensis*

1. *Ekebergia benguelensis* C. DC.

Small tree to 10m; usually in woodland. 3 trees of this species are known from Thika Golf Course; they were already there when the land was cleared in the 1920's, and local wazee say they are indigenous.



Ekebergia rueppeliana (Fresen.) A. Rich.

a: flowering branchlet ($\times 4$). b: fruits ($\times 4$). c: flower ($\times 4$). d: L.S. flower ($\times 4$).
 a, c & d: from Jackson 1505; b: from Van Someren 268a.

2. *Ekebergia capensis* Sparrm.

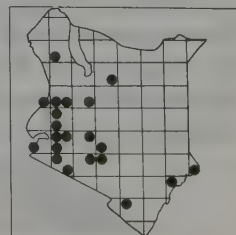
[*E. rueppeliana* (Fresen.) A. Rich.]

Tree 7.5-30m; bark pale brown-grey, cracking in small rectangular scales. Leaves with 7-11 leaflets, these (sub) opposite, with asymmetric base, 6-14 by 2-6cm, usually glabrous. Flowers white or cream, in cymes to 10cm long; petals 4-5mm. Fruit yellow or red, subglobose, 10-15mm across.

K1234567; 1-50m (coast) and 1300-2600m; I-IV, VII, X-XII (I-III)

Common in dry forest (Podo/Olea types), less often in moist; often at forest edge or in forest remnants; also in riverine forest.

Ekebergia (STAND), Mpotowandovu-Mkuu (BAJ), Mrongoleh (BON), Oròruet, Rararuet, Oroyuet (NDO), Kyuasi, Mukongui (KAM), Mungnga (KIK), Araruet, Aradwi (KIP), Omonyamavi (KIS), Tido (LUO), Ol-Subukiai (MAA), Kerbut (MAR), Muchogomo (MER),



Ekebergia capensis

Teldet (NAN), Bumet, Kipumetet (SEB), Mbo, Manuka-Masi (TAI), Temwaaa Arariet, Kondilwa (TUG), Eng'amwo (TUR). The wood is tough, and used for interior carpentry.

2. ENTANDOPHRAGMA



Entandophragma angolense (Welw.) C.DC.

1: flowering branch ($\frac{1}{4}$ nat. size). 2: flower in vertical section, $\times 5$.
3: fruit ($\frac{1}{4}$ nat. size). 4: seed ($\frac{1}{4}$ nat. size).

Entandophragma angolense (Welw.) C.DC.

Tree to over 30m with long clean bole; buttresses may be present; bark grey, smooth, scaling. Leaves paripinnate, with 10-16 leaflets. Flowers white, in panicles to 30cm; petals 5-6mm. Fruit a woody capsule, about 13cm by 3cm; seeds with a wing to 9cm long.

K5; Kakamega Forest; and there a rare species.

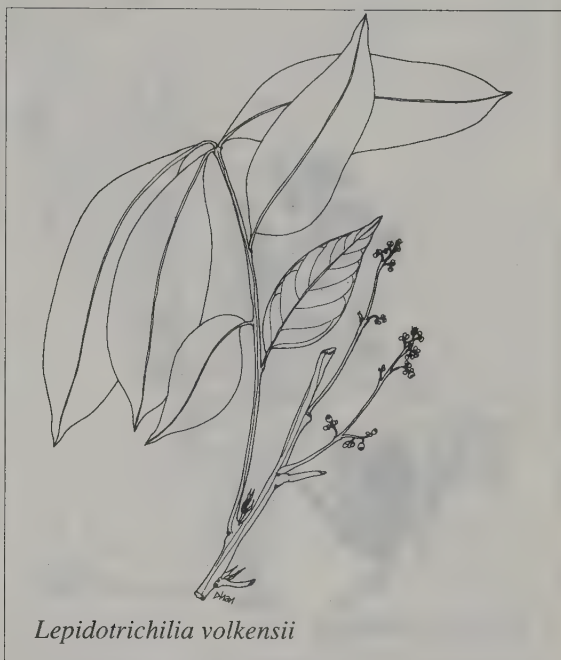
African Mahogany (TRADE), Gedu Nohor (STAND). Wood very hard.

3. LEPIDOTRICHILIA

Leaves imparipinnate. Flowers bisexual; disk absent. Fruit an indehiscent drupe.

Lepidotrichilia volkensii (Gürke) Leroy (*Trichilia volkensii* Gürke)

Tree (less often shrub) 3-20m; bark smooth, grey. Leaves (especially petiole & rachis) stellate-pubes-



Lepidotrichilia volkensii

cent, with 7-9 leaflets; leaflets 6-15 by 2-6cm, base asymmetric. Flowers cream to yellow-orange, in panicles to 20cm; petals 4-5mm. Fruit orange, broadly ellipsoid, 10-15 by 7-12mm.

K134567; 1550-2550m; I-II, IV, VI, VIII, XII (XII-II) Forest margins.

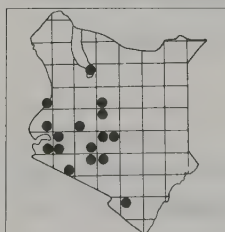
Mundara, Muthigitha (KIK), Luburiko, Lusarari (LUH), Mnyorokianjoro (MER), Pionyet, Laburiko (NAN), Ilagas (SAM), Bionwa (SEB), Ngoche (TAI), Kipchelele (TUG). Wood white, hard, fine-textured.

4. LOVOA

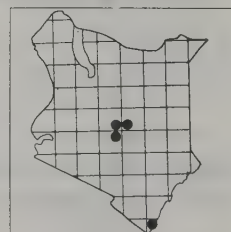
Leaves paripinnate. Flowers monoecious, in large panicles. Fruit a capsule.

Lovoa swynnertonii Bak.f.

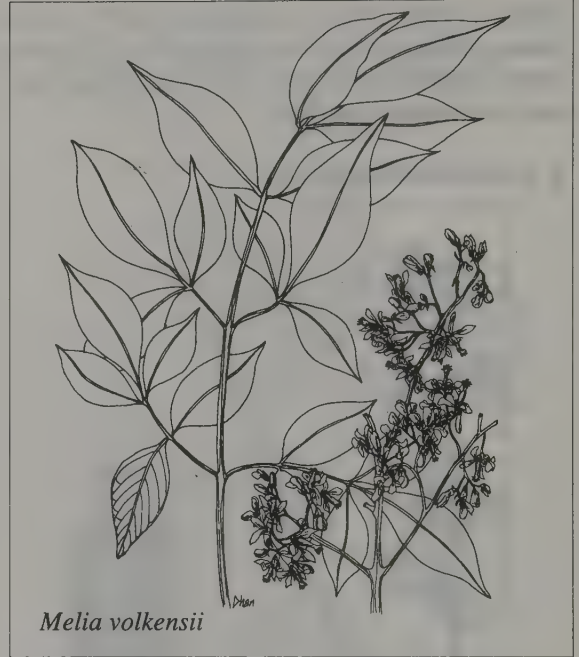
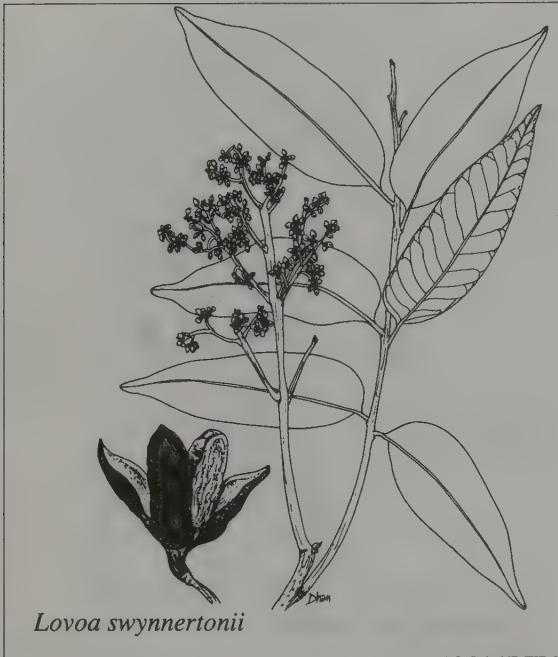
Tree 20-40(60?)m with narrow crown and long clean



Lepidotrichilia volkensii



Lovoa swynnertonii



bole, fluted at base; bark smooth, grey, flaking in circular patches. Leaves with 6-16 leaflets, these 5-11 by 2-5cm, with asymmetric base. Flowers white, in panicles to 15cm, petals 2.5-3.5mm. Fruit woody, 4-valved, 4-5.5 by 1.5-2cm.

K47; 150-450 (coast) and 1150-1350m; V *
Moist forest.

Nkobo (STAND), Mukongoro (KIK, MER). Good timber, durable and insect resistant.

5. MELIA

Leaves bipinnate. Flowers bisexual, in panicles. Fruit a drupe.

Melia volkensii Gürke

Tree 6-20m, deciduous; bark reticulately flaking (always?), grey. Leaves with (sub)opposite leaflets, 3-7 per pinnae; leaflets with entire or serrate margins, 2-

5 by 0.5-2.5cm, almost glabrous. Flowers white, in dense-headed panicles; inflorescence with stellate hairs; petals 5-7mm. Fruit yellow, ovoid, 28-35 by 17-22mm.

K147; 400-1650m; II-III *

Dry bushland or bush/woodland, drier wooded grasslands.

Tile, Bamba (BOR), Mukau (KAM), Mukau (KIK), Bamba (ORM), Maramarui (SAM), Baba (SOM), Mkowe (TAV), Pandaburi, Mukumbutu (TAI). Good timber.

6. PSEUDOBERSAMA

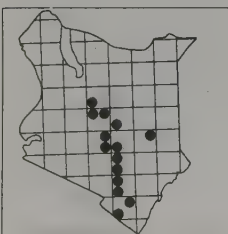
Leaves imparipinnate. Flowers dioecious, but with well-developed remnants of the opposite sex. Fruit a 4-5-valved capsule. Seed with red aril.

Pseudobersama mossambicensis (Sim) Verdc.

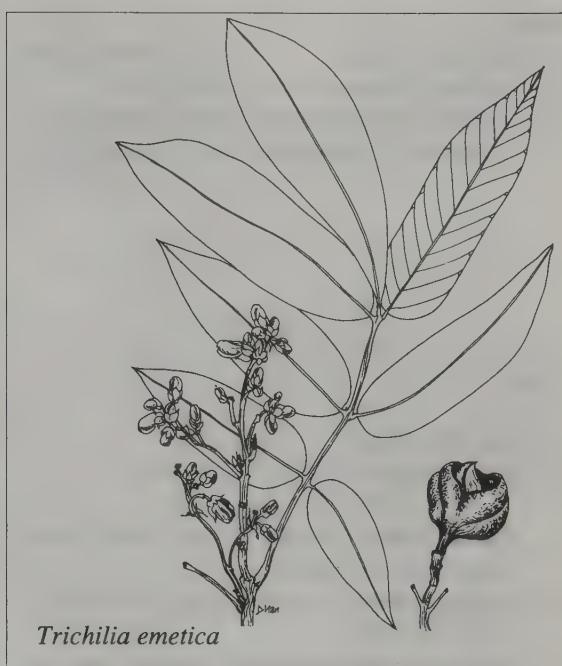
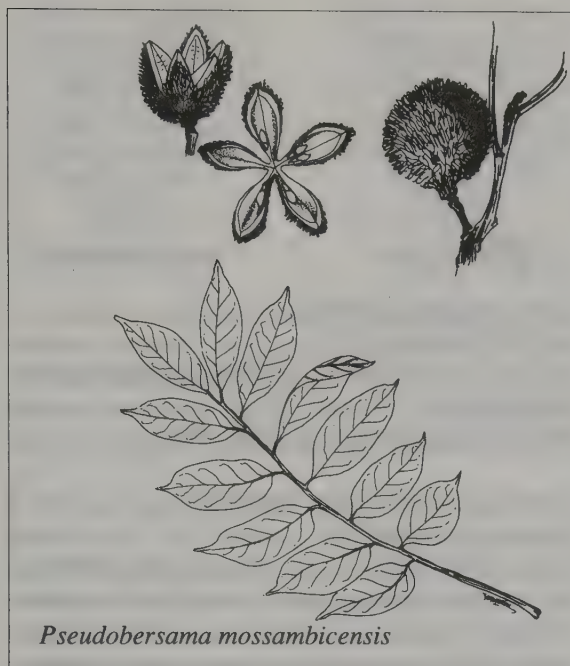
Shrub or tree 3-10m. Leaves with alternate leaflets, 9-17 per pinna; leaflets with asymmetric base, 3-15 by 2-6cm, pubescent when young but glabrescent. Flowers white, in lax cymes; petals 4.5-6mm. Fruit red, ellipsoid, 2.5-5 by 2-4cm, covered in warty lobes.

K7; 1-500m; IX, XI *

Moist forest (Shimba, Mrima, Gongoni, Mangea) Mala-Iko (SWA), Mzambila, Mtu-Mcherere (GIR).



Melia volkensii



7. TRICHILIA

Leaves imparipinnate. Flowers dioecious, but appearing as if bisexual. Fruit a 3-valved capsule.

1. Fruit stalked (stalk 3-9mm); leaflet apex usually obtuse; petals 9-14mm long

2. *T. emetica*

- * Fruit barely stalked (0-3mm); leaflet apex usually acute-acuminate; petals 13-22mm long

1. *T. dregeana*

1. *Trichilia dregeana* Sond.

(*T. strigulosa* C.DC.)

Tree 15-20m; bark smooth, whitish. Very much like *T. emetica*.

K45; 1500-1800m; I, IV*

Moist or riverine forest (Kakamega, near Thika, Karatina, Kiangombe).

Musiema (LUH), Mururi (KIK). Used for timber. According to Gachati 2/81 "sacred".

2. *Trichilia emetica* Vahl.

[*T. roka* Chiov., *T. sp. nov.* of KTS]

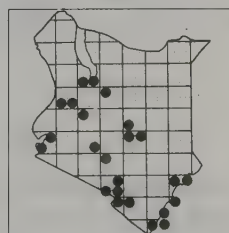
Tree 6-20m, evergreen; bark smooth, brown or grey. Leaflets 9-11 per leaf, opposite or alternate, 4-15 by 2.5-5cm, densely puberulous beneath. Flowers greenish-cream, in cymes to 10cm long; petals 7-15mm.

Fruit obovoid, 3-valved, 18-25 by 18-25mm, stalked; seed black, with a vivid red aril.

K1234567; 1-1450m; III-VI, VIII-X

Riverine, or in sites with high groundwater.

Mnwamaji (SWA, GIR), Anona (BOR), Munwa-madzi (DIG), Mufate (ILW), Mutuluku, Musambo (KAM), Mururi (KIK), Mnyama, Musinzi, Irojo (LUH), Ochond-Athuth, Ochond-Rateng' (LUO), Kurteswa (MAR), Mutwati (MER), Soke (ORM), Ilberi (SAM), Ekuyen (TUR), Kortswa (PKT). Oil from the seeds is used in making soap; the timber is light, and used for furniture-making; an infusion of the roots is emetic, but may be lethal in overdoses.



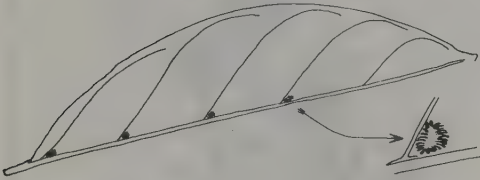
Trichilia emetica

8. TURRAEA

Leaves simple. Flowers bisexual, solitary or fasciculate, or in cymes, with a long filament tube. Fruit a

capsule.

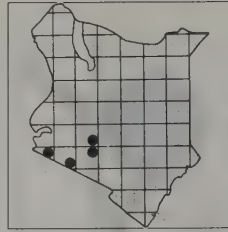
1. Leaf base cordate **6. *T. kokwaroana***
- * Leaf base cuneate or rarely subcordate **2**
2. Domatia present in vein-axils on underside of leaf (may be difficult to see in *T. wakefieldii*) **3**



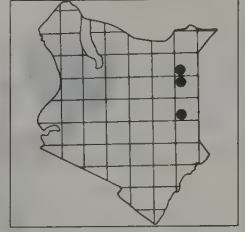
- * Domatia absent **8**
3. Leaves sparsely to densely puberulous beneath; corolla 12-16mm long **4**
- * Leaves glabrous or with only the midrib hairy; corolla over 18mm long **5**
4. Leaf apex bluntly acuminate; staminal tube hairy in throat **1. *T. abyssinica***
- * Leaf apex rounded or acute; staminal tube glabrous in throat **10. *T. robusta***
5. Corolla 50-70mm long; coastal bushland **11. *T. wakefieldii***
- * Corolla 18-45mm long **6**
6. Pedicels 20-43mm long **5. *T. holstii***
- * Pedicels less than 10mm long **7**
7. Corolla 20-27mm long; leafbase rounded or cuneate **3. *T. cornucopia***
- * Corolla 25-45mm long; leafbase decurrent; leaves in fascicles **7. *T. mombassana***
8. Corolla 85-104mm long; leaf apex acuminate; veins with long hairs **4. *T. floribunda***
- * Corolla less than 20mm long; leaf apex rounded or subacute **9**
9. Leaves 1-4 by 0.5-3cm **10**
- * Leaves 8-15 by 4.5-8cm **8. *T. nilotica***
10. Corolla 11-14mm long; leaves 10-30mm wide **2. *T. barbata***
- * Corolla 7-10mm long; leaves 6-9mm wide **9. *T. parvifolia***

1. *Turraea abyssinica* A.Rich.

Shrub or tree 2-12m; bark smooth. Leaves ovate or elliptic, base cuneate, apex acuminate with rounded tip, 4-11 by 2-5cm, sparsely puberulous, with domatia. Flowers cream, in short axillary and terminal cymes; petals 12-16mm. Fruit 3-lobed, 8-9 by 10-12mm.



Turraea abyssinica



Turraea barbata

Seeds with orange-red aril.

K46; 2050-2300m; II *

Riverine, in dry forest, or in (forest remnant) thickets (Maasai Mara).

Murundo (KIK), Nchamyangashi (MAA).

2. *Turraea barbata* White & Styles
(*Turraea* sp. 1 of KTS)

Shrub 2-2.5m. Leaves ovate, base rounded to subcordate, apex obtuse or subacute, 2-4 by 1-3cm, sparsely to densely puberulous; no domatia. Flowers white or cream, in very short axillary cymes; petals 11-14mm. Fruit not seen.

K1; 150-350m; IV-V *

Acacia-Commiphora bushland.

Geshirib (BOR), Suredu (SOM).

3. *Turraea cornucopia* White & Styles
(*T. sp. nov.* of KTS)

RARE

Shrub 2-3m. Leaves ovate or elliptic, base rounded or cuneate (often unequal), apex obtuse or emarginate, 3-7 by 1.5-4cm, puberulous only on midrib beneath, with domatia. Flowers white or cream, in very short cymes; petals 20-27mm long. Only young fruits seen.

K16; 1200-1750m; IV, XII *

Bushland/woodland ecotone, on rocky soils.

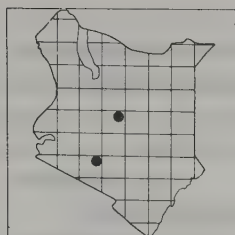
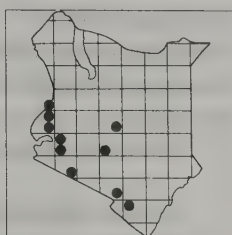
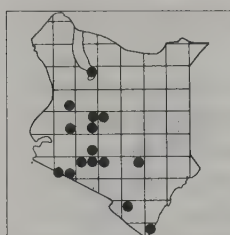
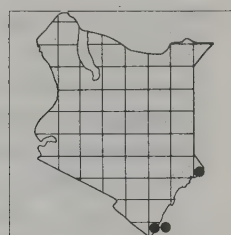
4. *Turraea floribunda* Hochst.
(*T. kaessneri* Bak.f.)

Shrub or tree, sometimes scandent, 3-6m. Leaves elliptic, base cuneate, apex short-acuminate, 9-20 by 4-10cm, densely hairy when young, on older leaves mainly on veins; no domatia. Flowers white, in short cymes; petals 85-104mm long. Fruit obovoid, ribbed, about 20 by 19mm.

K7; 1-450m; III, XI *

Moist forest (Shimba Hills, Kinondo, Mrima Hill).

NOTE: The Kenyan material shows much larger flowers than more southern plants; the pedicels are larger

*Turraea cornucopia**Turraea holstii**Turraea mombassana**Turraea nilotica*

(to 20mm), the petals are about twice as long, as is the staminal column. It is quite possible that I have missapplied the name.

Mwoza Nyama (DIG), Ilang-Ilang-Ya-Mwitu (SWA). The Digo employ a root decoction against coughs.

5. *Turraea holstii* Gürke

Shrub or tree, 2.5-12m; bark in older trees grooved. Leaves elliptic, base cuneate, apex bluntly acuminate, 3-8 by 1-3.5cm, glabrous or nearly so, with domatia. Flowers white to cream, pendulous, solitary or in few-flowered cymes; petals 18-25mm. Fruit yellow, depressed globose, 9-15mm across.

K34567; 1350-2250m; II, V-VII * (II).

Forest.

Murundi, Muti-Muiru (KIK), Chesiseiyet (KIP), Lumenzani, Shirietsa (LUH), Ol-Masoli (MAA), Timbiriandet, Chemsal (NAN), Munuriathenge, Karasambugi (MER), Ndana (TAI).

6. *T. kokwaroana* Styles & F. White

(*T. sp.* 2 of KTS)

Small tree with cordate leafbase and papillose-hairy leaves.

K1, only known from Dandu (Gillett 12577).

7. *Turraea mombassana* C.DC.

Shrub 0.5-3m (rarely scrambling). Leaves usually in fascicles from minute side-shoots, (broadly) elliptic, base decurrent, apex subacuminate to emarginate, 1-5 by 0.5-3cm, glabrous or nearly so; with domatia. Flowers white to yellow, in fascicles or on very short (1mm) peduncles; petals 25-45mm. Fruit depressed globose, 8-14mm across; seeds red with white aril.

K13467; 1-450 (coast) & 1400-2200m; I-VII, X-XII (V-VI, XI-XII)

Dry forest (margins), semi-evergreen bushland.

Jabo-Karama, Chaba-Karama (BOR), Lkonduo (MAA), Nyurumenwo (PKT), Kokolai (SAM).

8. *Turraea nilotica* Kotschy & Peyr.

Shrub or tree 1.5-12m. Leaves elliptic to slightly obovate, base cuneate, apex rounded or emarginate, 8-15 by 4.5-8cm, densely puberulous to almost glabrous; no domatia. Flowers white to yellow, in fascicles (rarely minutely stalked); petals 12-18mm. Fruit depressed globose, 10-14mm across.

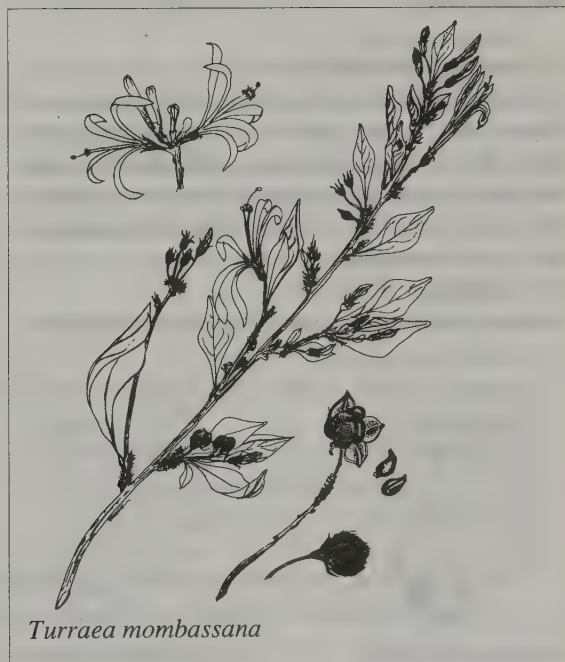
K7; 1-450m; I, IV, X-XI *

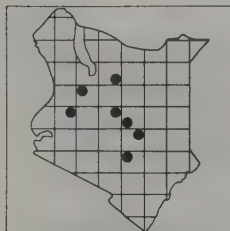
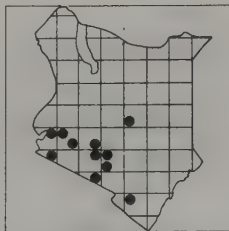
Coastal (*Acacia*) bushland; rarely in dry forest.

Mlanate (BAJ), Mrondaronda, Moza nyama (DIG).

9. *Turraea parvifolia* Deflers

Shrub 1-4.5m. Leaves in fascicles on minute short-shoots, elliptic or obovate, base cuneate, apex rounded, 1-3 by 0.6-0.9cm, sparsely hairy to almost glabrous; no domatia. Flowers white to cream, in few-flowered fascicles; petals 7-10mm. Fruit depressed globose, 7-

*Turraea mombassana*

*Turraea parvifolia**Turraea robusta*

10mm across.

K1347; 300-850m; II, IV, VIII-IX, XI*

Acacia-Commiphora bushland.

Abras (BRO), Chesotim (PKT), Ncheni Orok (SAM), Enampapapa (TUR).

10. *Turraea robusta* Gürke

Shrub or tree 2-15m; bark rough, brown. Leaves elliptic or obovate, base cuneate, apex rounded to acute, 3.5-12 by 2-8cm, short-pubescent beneath; with domatia. Flowers white to yellowish, in cymes; petals 12-14mm. Fruit yellow, depressed globose, 10-16mm across.

K4567; 1400-2100m; II-III, V-VI, IX-X *

Wooded grassland or bushland/wooded grassland ecotone; also in (riverine) forest.

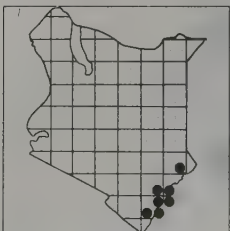
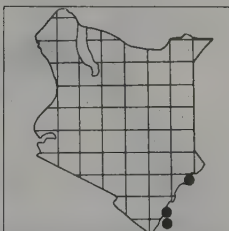
Mwalaga-Kuku (GIR), Kitunene, Mutunene (KAM), Muringa (KIK), Mumendi (KIS), Olburobinik (MAA), Mndana (TAI).

11. *Turraea wakefieldii* Oliv.

(Scrambling) shrub or tree 3-6m. Leaves ovate or elliptic, base cuneate, apex bluntly and shortly acuminate, 4-8 by 2-4cm, glabrous, with domatia. Flowers white to cream, in few-flowered fascicles (or subsessile cymes); petals 50-70mm. Fruit depressed globose, 10-12mm across.

K17; 1-500mm; III-IV, VI *

Coastal evergreen bushland or secondary bushland.

*Turraea wakefieldii**Xylocarpus granatum*

9. XYLOCARPUS

Leaves paripinnate. Flowers dioecious or monoecious, in compound cymes. Fruit a large leathery capsule, 4-valved.

1. Mangrove species with surface roots

1. *X. granatum*

* Coastal bushland/thicket species without surface roots

2. *X. moluccensis*

1. *Xylocarpus granatum* Koen.

[*X. benadirensis* Mattei]

Tree 5-12m, evergreen, with spreading flattish surface roots, the upper edge of these protruding above the mud and forming a network. Leaves with 2-4(6) leaflets, these drying orange-brown on their lower surface, elliptic, apex rounded, 5.5-11 by 2.2-6cm, glabrous. Flowers white or cream (pale pink?); petals 5-6.5mm. Fruit 8-25cm across, obscurely 4-valved.

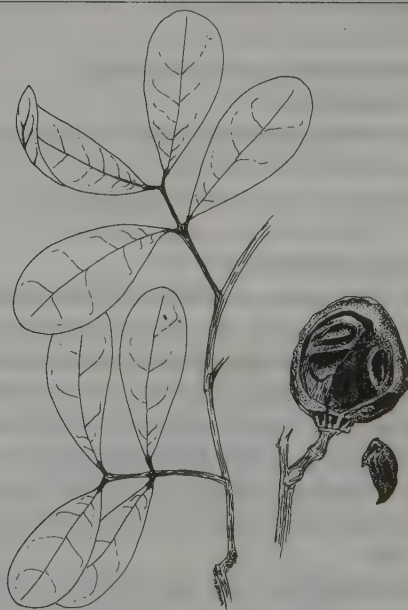
K7; near high water mark; I, IV *

Mangrove.

Mkomafi, Mtonga (SWA).

2. *Xylocarpus moluccensis* (Lam.) M.J.Roem.

Shrub or tree 3-8m. Leaves with 4-6(8) leaflets, those drying yellow-green, ovate, apex subacuminate, 5-9 by 3-5cm, glabrous. Flowers greenish-white; petals 5-

*Xylocarpus granatum*

7mm. Fruit to 8cm across.

K7; 1-20m; III, X *

On coral, in thicket or bushland (Diani and Kiunga). Mkomafi (SWA). The timber is used in dhow masts and in joinery.

198. SAPINDACEAE

Leaves alternate, usually without stipules. Flowers usually dioecious. Sepals 4-5; petals 0-5, usually with 1-2 scales at the base; disk present; stamens 5-12. Inflorescence usually a raceme or a panicle with the flowers in small groups.

1. Leaves simple 2
- * Leaves compound 4
2. Leaves sticky-glandular, very glossy 8. *Dodonaea*
- * Leaves not sticky 3
3. Coastal species; leafbase symmetric; leaves not leathery 1. *Allophylus pervillei*
- * Inland species; leafbase unequal; leaves leathery 18. *Pappea*
4. Leaves bipinnate 5
- * Leaves once-pinnate 6
5. Pinnae in 3 pairs; leaflets in 5-13 pairs; tree of Mander district 4. *Bottegoa*
- * Pinnae in 4-10 pairs, leaflets in 6-32 pairs; shrub or tree from the coast 15. *Macphersonia*
6. Climbers with 5 leaflets and coiled tendrils 19. *Paullinia*
- * Plant without tendrils 7
7. Leaflets 3 per leaf, usually with toothed margins 1. *Allophylus*
- * Leaflets 2 per leaf, or 4 or more; margins usually entire 8
8. Leaf rachis winged, the wing wider than 3mm 9. *Filicium*
- * Leaf rachis not winged, or (in *Haplocoelum*) the wings less than 3mm wide 9
9. Star hairs on twigs and inflorescences; coastal tree 16. *Majidea*
- * Hairs simple 10
10. Flowers/fruits in inflorescences from older wood; petals 4 11
- * Inflorescences from among the leaves; petals 5, or absent 12
11. Trunk palm-like, unbranched; leaves with top

pair of leaflets the largest; petals 4-5mm long

6. *Chytranthus*

- * Trunk not palm-like; leaves with all leaflets roughly the same size; petals about 3mm long

17. *Pancovia*, and 5. *Camptolepis*

12. Inflorescence a large panicle, 30-60cm long 13

- * Inflorescence less than 16cm long 14

13. Petals about 2mm long; fruit of 2 flat mericarps

2. *Aporrhiza*

- * Petals 3.5-6mm long; fruit of 1-3 round or ellipsoid mericarps

7. *Deinbollia*

14. Flowers/fruits in dense groups, not obviously on a central axis, the inflorescence less than 3cm long 15

- * Flowers/fruits in (apparent) racemes or panicles 16

15. Inflorescence axillary; leaves usually on short-shoots 12. *Haplocoelum*

- * Inflorescence terminal; leaves not on shortshoots 21. *Zanha*

16. Inflorescence a panicle, more than 5cm long 17

- * Inflorescence an unbranched raceme (but sometimes branching in *Haplocoelopsis*, then <5cm) 18

17. Petals absent; sepals 4; leaflets with swollen petiolules, symmetrical at base 10. *Glenniea*

- * Petals 5, sepals 5; leaflets not with swollen petiolules, asymmetrical at base

14. *Lepisanthes*

18. Apex of leaflets (bluntly) acuminate; lower pair of leaflets often very small; petals 5; fruit 15-25mm long 19

- * Apex of leaflets blunt or rounded; lower pair of leaflets not much smaller than others; petals absent; fruit 10-12mm 20

19. Petals to 1.5mm long; fruit a 3-lobed capsule

3. *Blighia*

- * Petals 5-8mm long; fruit a round drupe

11. *Haplocoelopsis*

20. Calyx 2.5-3mm long; fruit a single 1-seeded capsule 13. *Lecaniodiscus*

- * Calyx < 1mm long; fruit of 1-2 mericarps, with 1-2 abortive mericarps at the base

20. *Stadmania*

NOTE: recently found at Witu: 5. *Camptolepis ramiflora* with paripinnate leaves (4-10 leaflets) and flowers from older wood.

1. ALLOPHYLUS

Leaves (1)3-foliolate, glandular. Inflorescence a panicle or racemose thyrs. Flowers male and female in the same inflorescence. Sepals and petals 4; stamens 8. Fruit a drupe.

1. Leaves with lateral leaflets much less than half as long as the terminal leaflet, or with only one (terminal) leaflet **5. *A. pervillei***

* Leaves with lateral leaflets more than half as long as the terminal leaflet **2**

2. Inflorescence branched **3**

* Inflorescence unbranched or nearly so **6**

3. Coastal forest species, with leaflets often over 15cm long and inflorescence over 25cm long **7. *A. zimmermannianus***

* Inland species, or coastal species with leaves shorter than 14cm and inflorescence under 22cm long **4**

4. Leaflets hairy beneath **6. *A. rubifolius***

* Leaflets glabrous beneath **5**

5. Petiole 3-10cm, minutely tomentellous; forest **1. *A. abyssinicus***

* Petiole 1-3(6)cm long, (glabrous or) pubescent; riverine or wooded grassland **2. *A. africanus***

6. Leaves usually drying green in both sides; leaflet apex long-tapering **3. *A. ferrugineus***

* Leaves drying brown or black above; leaflet apex acute or obtuse **7**

7. Sepals 1.5-2mm long; leaflets glabrous **4. *A. kilimandscharicus***

* Sepals less than 1.1mm long; leaflets glabrous or hairy **6. *A. rubifolius***

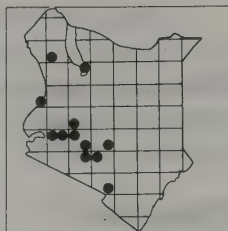
1. *Allophylus abyssinicus* (Hochst.) Radlk.

Shrub 1.2m to tree up to 21m; bark grey, smooth. Lateral leaflet two-thirds to one times as large as the terminal one, terminal leaflet 9-18 by 4-8cm, with crenate margins, glandular, glabrous except for domatia. Flowers white, in panicles 10-16cm long. Fruit obovoid, 7-8mm long.

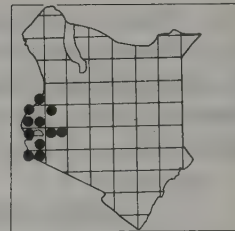
K12345; 1000-2550m; II, IV, VI, IX-XII *

Dry or moist forest (remnants); riverine forest.

Mongame (KAM), Mushami (STAND, KIK), Ilkukute (SAM), Ekekeota (TUR), Sasuriet, Mororta (KIP), Losin (MAR), Mutarauka, Mukarakara (MER), Saganuet (NAN), Bionwa, Pionyet (SEB), Morilwa (TUG). Wood not durable.



Allophylus abyssinicus



Allophylus africanus

2. *Allophylus africanus* P. Beauv.

Shrub or tree 3-9m. Lateral leaflets almost as large as the terminal one; terminal leaflet 5-11 by 2.5-5cm, margins crenate or toothed, glandular, glabrous or nearly so, sometimes with domatia. Flowers greenish cream, in panicles 4-12cm long. Fruit round or ellipsoid, 5-6mm long.

K356; 1200-2250m; I, V-VI, VIII-IX *

Riverine or in moist wooded grassland, often on old termite hills.

Gadida (BOR), Nyaludhi, Ochond-Atego (LUO), Mongunyet (SEB). Stem fibres are used in weaving granaries.

Note: I have not seen Robertson 1899 from the Thiba R. cited in FTEA-typescript, and I have not included this in the map.

3. *Allophylus ferrugineus* Taub.

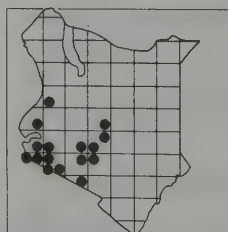
[*A. oreophilus* Gilg., *A. volkensii* Gilg, *A. cuneatus* E.G. Baker, *A. macrobotrys* Gilg, *A. sp.* of KTS]

(Scandent) shrub or tree 1.2-6m. Lateral leaflets 0.5-1 times as large as the terminal one; terminal leaflet 5-25 by 2.5-9cm, toothed or somewhat lobed at the margins, glabrous to pubescent, glandular, often with domatia. Flowers greenish cream or white, in usually unbranched racemes 8-30cm long. Fruit green to red, ellipsoid, 5-8mm long.

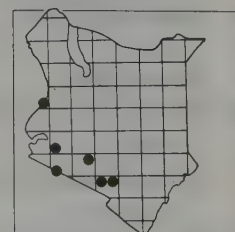
K3456; 1200-2200m; II-IV, VI-XII

Moist or dry forest or riverine forest.

Mugibe (KIK), Borwetap-chepkeleliet (KIP), Olsioti



Allophylus ferrugineus



A. kilimandscharicus

(MAA), Kumukhendie, Lusasari (LUH). The fruit is edible.

4. *Allophylus kilimandscharicus* Taub.

Shrub or tree 1-6m. Lateral leaflets 0.5-0.75 times as large as the terminal one, terminal leaflet 4-8 by 2-4cm, the margins shallowly lobed as well as toothed, glandular, glabrous except for the domatia. Flowers greenish white, in unbranched racemes 5-15cm long. Fruit yellowish, obovoid, 5-6mm long.

K(3?)456; 1550-2150m; II, IV, VI, XII *

Dry forest (remnants)

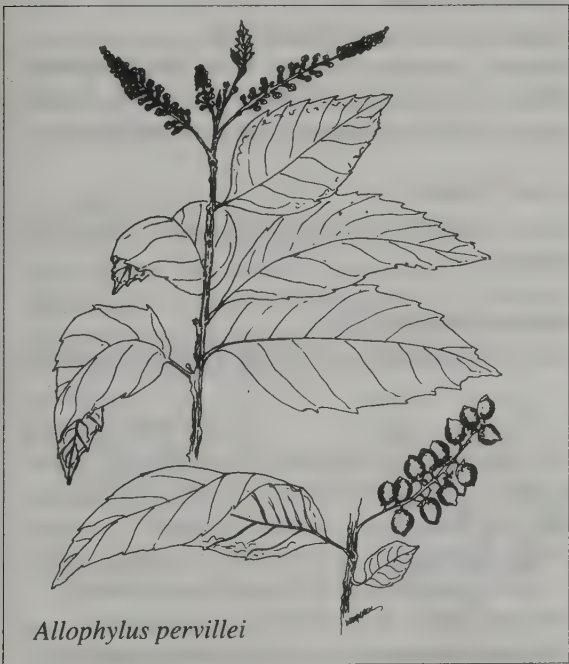
Muthigio (KIK).

5. *Allophylus pervillei* Bl.

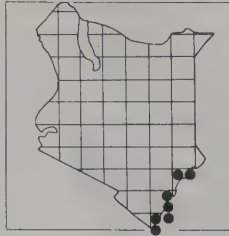
Shrub 0.5-4m, occasionally reported as a tree to 6 or 9m. Leaves usually unifoliate, rarely with persistent, minute lateral leaflets to 1cm long; terminal leaflet elliptic or obovate, base cuneate, apex acuminate, margins entire, slightly lobed or toothed, 6-16 by 3-9cm, glandular, glabrous. Flowers white or cream, in unbranched racemes 4-10cm long. Fruit red, round or ellipsoid, 5-8mm long.

K7; 1-450m; I-IV, VI-XII (XII)

Forest (margins), *Brachystegia* woodland, coastal evergreen thicket.



Allophylus pervillei



Allophylus pervillei



Allophylus rubifolius

Mchacha (SWA), Mudimi tsaka, Mpalika (DIG), Mbonokoma, Munyanga-Kitswa (GIR). Used for building poles.

6. *Allophylus rubifolius* (A.Rich.) Engl.

[*A. alnifolius* (Bak.) Radlk., *A. tenuis* Radlk., *A. stachyanthus* Gilg., *A. griseotomentosus* sensu KTS] Shrub or tree, occasionally a climber, 1-7.5m. Lateral leaflets one-third to half as large as the terminal one; terminal leaflet 2-14 by 1-8cm, margins serrate, glandular, glabrous to densely (whitish) pubescent, often with domatia. Flowers white or cream, in usually unbranched racemes 4-22cm long. Fruit orange or red, round or elliptic, 5-7mm long.

K1234567; 1-2100m; I-XII (I, VII, XII)

A very variable species or species group; found in a great variety of habitats, from dry bushland, woodland, thickets and along rivers to dry forest and coastal moist forest. The forest forms often have larger leaves and white pubescence, and sometimes branched inflorescences.

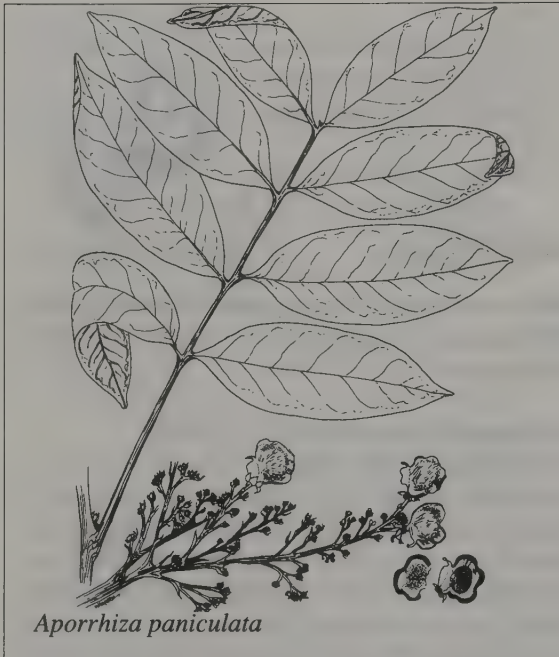
Mlishangwe, Mkona-Chuma (SWA), Ethamathu (BON), Mbanda-Tchitswa, Mvunga-Kondo (DIG), Munyanga-kitwa (GIR), Mweze-banya (ILW), Muthe (KAM), Chekeleliet, Borowet (KIP), Oludh-kuon, Nyamwoch (LUO), Osyaiti orok (MAA), Chepkokai (PKT), Idi shibel bured (SOM), Ekarai (TUR).

7. *Allophylus zimmermannianus* F.G Davies ined.

VULNERABLE, ?ENDANGERED

Shrub or tree 3-5m. Lateral leaflets 0.75-1 times as large as the terminal one, terminal leaflet 12-21 by 6-10cm, margins crenate-serrate, glandular, glabrous. Flowers cream or white, in panicles 25-30cm long. Fruit red, ellipsoid, 5-6mm long.

K7, Shimba Hills forest at 375m.

*Aporrhiza paniculata*

2. APORRHIZA

Leaves paripinnate. Flowers functionally unisexual. Sepals and petals 5; stamens 6-8. Fruit a capsule.

Aporrhiza paniculata Radlk.

Tree 4.5-16m; bark smooth, grey. Leaflets 6-10, opposite or alternate, base cuneate, apex obtuse, 8-18 by 3-8cm, glabrous (or with hairy veins). Flowers white, in terminal or axillary panicles 30-50cm long; petals about 2mm. Fruit with 2 flat almost round mericarps, each 12-20mm long.

K7; 1-400m; - *

Riverine forest in Shimba Hills and near Mchelelo (Tana R.)

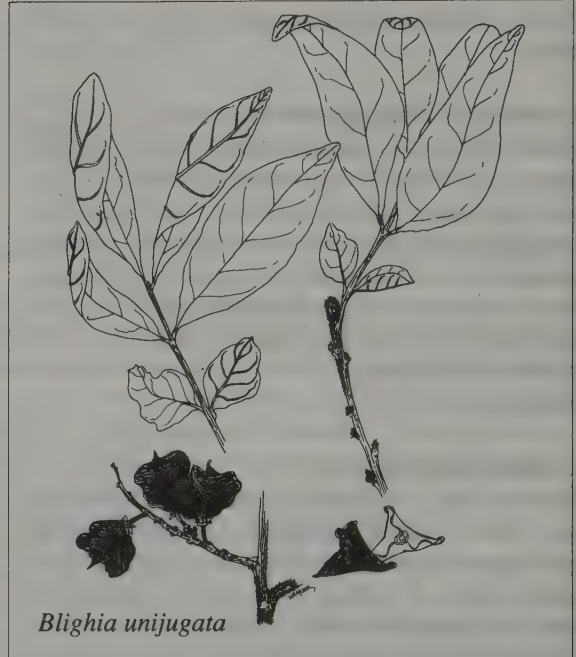
Munywa madzi (DIG); a bark infusion is employed against tuberculosis by the Digo.

3. BLIGHIA

Leaves paripinnate. Flowers usually dioecious. Sepals and petals 5, stamens 8-10. Fruit a 3-lobed capsule.

Blighia unijugata Bak.

Tree 5-30m; bark smooth, brown-grey, sometimes with warty excrescences. Leaflets (2) 4-8(10), elliptic, base cuneate, apex (rounded or) acuminate, 6-22 by 1.5-

*Blighia unijugata*

8cm, the lowermost pair sometimes very small, glabrous; often with domatia. Flowers white, in axillary racemes or spikes 5-10cm long; petals about 1.5mm. Fruit red, three-lobed, 17-30 by 19-30mm. Seeds with yellow aril.

K34567; 1-1900m; I, X *

Moist or dry forest; riverine forest.

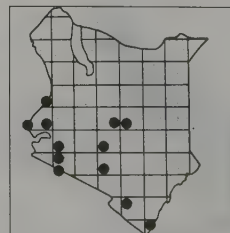
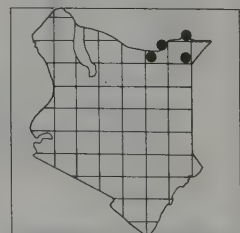
Mkivule, Mwakamwatu (SWA), Mpwapwaka (DIG), Muikoni (KIK), Shiarambata (LUH), Oggon-Achak (LUO), Muthiama (MER). Wood durable.

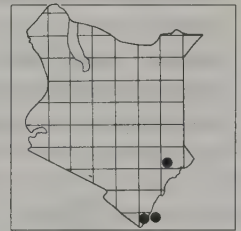
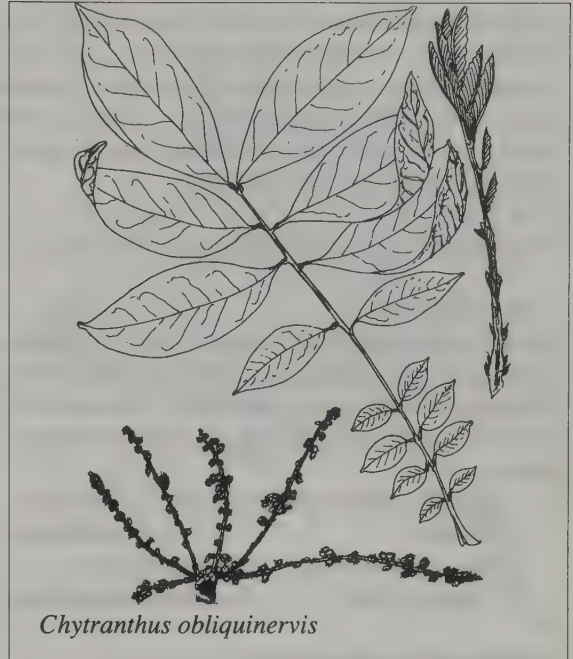
4. BOTTEGOA

Leaves bipinnate. Flowers dioecious(?); sepals and petals 4.

Bottegoa insignis Chiov.

Tree 6-10m; bark grey, fissured. Leaves with 3 pairs

*Blighia unijugata**Bottegoa insignis*



Chytranthus obliquinervis

of pinnae, each with 4-10 oblong leaflets, 5-13 by 3-6mm, asymmetrical, sparsely pilose and sometimes gland-dotted. Male flowers unknown; female flowers cream, in racemes about 7cm long; petals about 5mm long. Fruit yellow-brown, flat, almost round with emarginate apex, to 5cm across, the centre spongy. K1; 400-750m; - *

Acacia-Commiphora bush/woodland.
Sirsub, Abareta (BOR), Domader (SOM).

5. CAMPTOLEPIS

Camptolepis ramiflora (Taub.) Radlk.

Tree 3-30m, evergreen; bark smooth, rufous. Leaves imparipinnate, glabrous, with 4-10 leaflets. Flowers white, in dense cymes from older wood. K7: Robertson & Luke 5477 from Witu.

6. CHYTRANTHUS

Trunk often palm-like, unbranched. Leaves (im-)paripinnate. Inflorescence from roots, trunk or branches. Flowers unisexual, the petals on one side. Sepals 5, petals 4, stamens 7-8. Fruit a drupe.

1. Inflorescence shortly pedunculate (<5cm);
leaflets in ca. 12 pairs 1. *C. obliquinervis*
- * 2. Inflorescence long-pedunculate (10-20cm);
leaflets in ca. 5 pairs 2. *C. prieurianus*

1. *Chytranthus obliquinervis* Engl.

Tree 2-15m, with an unbranched trunk and crown of pinnate leaves from its top. Bark greybrown, smooth or somewhat wrinkled. Leaves to 1m long, leaflets in 5-25 pairs, the lowermost small (2cm long), the uppermost to 45cm long; leaflets obovate, opposite or alternate. Flowers white or cream, in racemes 5-13cm long arising in clusters from the trunk from near the ground to just below the leaves; petals 4-5mm long. Fruit unknown.

K7; 1-400m; I-II, IX, XI-XII *

Moist forest or riverine forest.

Makamwaka (SWA), Mpwakapwaka (DIG). The fruit is edible.

2. *Chytranthus prieurianus* Baill.

ssp. *longiflorus* (Verdc.) Hallé

(*C. saclexii* Pierre & Saclex ssp. *longiflorus* Verdcourt)

Single-stemmed shrub or treelet 1-1.5m. Leaflets in 5 opposite pairs, the largest (uppermost) to 22 by 7cm, glabrous except for some hairs on the veins. Flowers cream, in racemes 15-30cm long from below or just above ground level; petals 4-5.5mm long. Fruit orange, fleshy, mature ones unknown.

K7; 1-50m; VIII *

Forest remnants (Shimoni, Nyali, South of Witu).

7. DEINBOLLIA

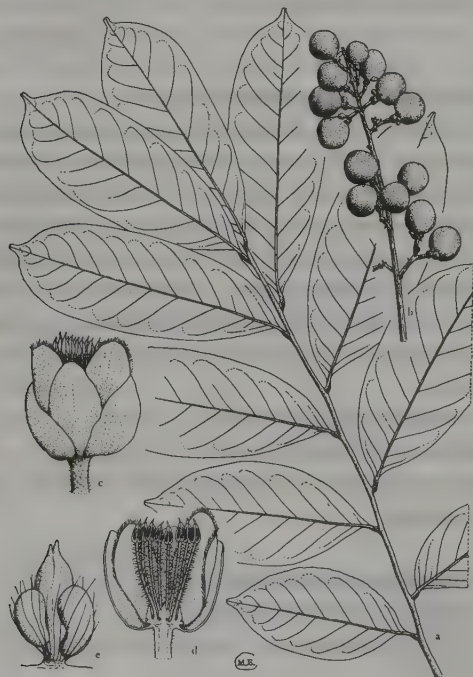
General habitat usually as in *Chytranthus*. Leaves paripinnate, the leaflets alternate or subopposite. Flowers unisexual; sepals and petals 5, stamens 9-30, with hairy filaments. Fruit of 1-3 indehiscent mericarps.

1. Apex of leaflet rounded; species found below 1000m **1. *D. borbonica***

- * Apex of leaflet acuminate; species found above 1000m **2. *D. kilimandscharica***

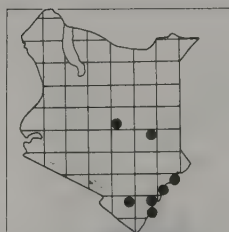
1. *Deinbollia borbonica* Scheff.

Shrub or tree, 0.5-7m, usually (always?) with an unbranched trunk and a crown of leaves at its top. Leaflets 6-16(20), elliptic or obovate, base asymmetrically cuneate or rounded, apex rounded, all roughly the same size, 3.5-17 by 1.5-8cm, somewhat pilose

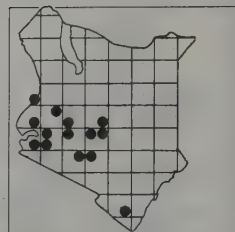


Deinbollia kilimandscharica Taub.

a: leaf ($\times \frac{1}{2}$). b: fruits ($\times \frac{1}{2}$). c: flower ($\times 4$). d: L.S. flower ($\times 4$).
e: gynoeium ($\times 30$).
a: from Gardner s.n.; b: from Honoré 474; c-e: from Gardner 1475.



Deinbollia borbonica



Deinbollia kilimandscharica

below. Flowers white, in terminal or axillary panicles 30-60cm long; petals 5-6mm long. Fruit yellow or reddish, round or ellipsoid, 10-14mm long.

K7; 1-700m; II, V, VIII, X-XII

Forest, secondary bush, evergreen coastal thicket, riverine bush.

Mwakamwaka, Kilimu (SWA), Mnwaka-puza (DIG), Mdala-Mwaka (GIR), Motya-iziba (ILW), Mukakinya-Kusia (SAN). Fruit edible.

2. *Deinbollia kilimandscharica* Taub.

Shrub or tree 2-12m; bark rough. Leaflets 6-12, elliptic or (ob)ovate, base (often asymmetric) cuneate or rounded, apex acuminate; the upper longer than the lower, 6-24 by 3.5-7cm, glabrous. Flowers white or cream, in (sub) terminal panicles 30-60cm long; petals 3.5-5mm long. Fruit yellow or reddish brown, ellipsoid, 10-14mm long.

K34567; 1200-2250m; I-II, VI, VIII, X-XII

Moist or dry forest, riverine forest.

Mutalombe (KAM), Muchanga-Mukio (KIK), Chepokalyal (KIP), Musana (LUH), Kamigwa, Mulukelwo (TUG). The fruit is edible.

8. DODONAEA

Leaves simple, resinous. Flowers dioecious; sepals 3-7, petals absent, stamens 5-8. Fruit a winged capsule.

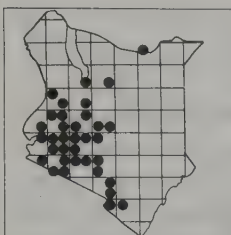
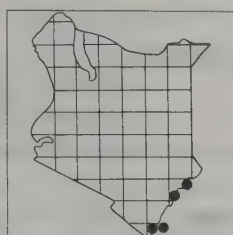
1. Upland species; fruits reddish; flowers mostly unisexual **1. *D. angustifolia***

- * Coastal species; fruits white or brown; flowers mostly bisexual **2. *D. viscosa***

1. *Dodonaea angustifolia* L.f.

(*D. viscosa* sensu KTS, p.p.)

Shrub or tree 1-6m. Leaves glossy, sticky with resin, (narrowly) elliptic, base cuneate, apex acute, 4-10 by 1-3cm, glabrous. Flowers yellow-green, in panicles 2-5cm long; sepals to 3mm long. Fruit pinkish or reddish, 2-3-winged, 12-20mm long.

*Dodonaea angustifolia**Dodonaea viscosa*

K1234567; 1000-2700m; II-XI (IX-X)

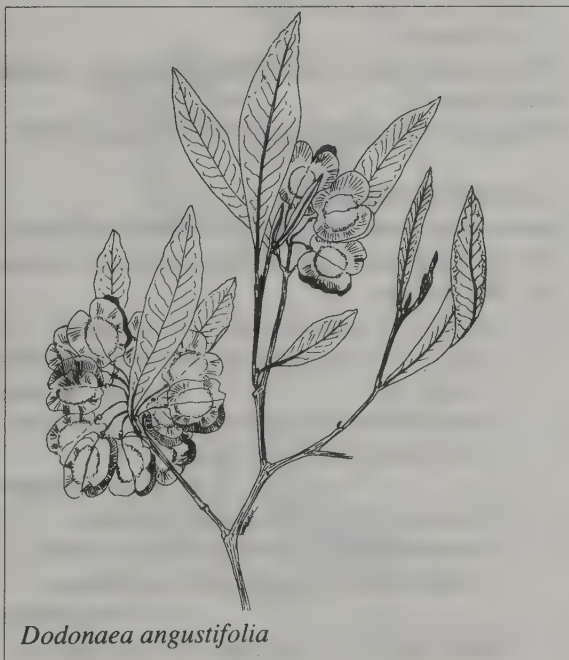
Evergreen (secondary) bushland, usually in rocky, stony, or lava sites; also in forest margins. This species can withstand fires to an amazing degree.

Mkaa-Pwani (SWA), Hidesa (BOR), Kithongoi (KAM), Murema muthua (KIK), Muendu (LUH), Oking' (LUO), Orgeturai, Ol-Tuyesi (MAA), Tabilikwa (MAR), Tombolokwa (SEB), Tupulokwo (TUG). Wood hard, heavy, used for tool handles and walking sticks. A good hedge species, used for sand binding.

2. *Dodonaea viscosa* Jacq.

Shrub, 3-4m, very similar to *D. angustifolia*; leaves generally somewhat larger, as is the fruit (with 2 wings).

K7; 0-50m; VIII *

*Dodonaea angustifolia**Filicium decipiens*

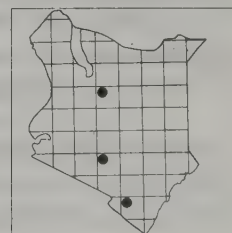
Sand near high water mark, dunes.
Mkapwani (SWA).

9. FILICIUM

Leaves pinnate, usually with a terminal leaflet; the leaflets opposite or alternate. Flowers monoecious. Sepals, petals and stamens 5. Fruit a drupe.

Filicium decipiens (Wight & Arn.) Thwaites
Tree, 6-10m. Leaves with winged rachis, the wing to 1cm wide; leaflets 6-18(24), narrowly elliptic, base asymmetrically cuneate, apex emarginate but narrow, 6-14 by 2-3cm, glabrous, with wax dots. Flowers white, in axillary panicles 9-25cm long; petals about 1.5mm long. Fruit purple, ellipsoid, 9-11mm long.
K147; 1050-1500m; I-II *

Riverine forest or swampy sites in forest.
Fern Leaf Tree (Common), Kamiti (KIK).

*Filicium decipiens*



10. GLENNIAEA

Leaves paripinnate, with alternate or opposite leaflets. Flowers bisexual. Sepals 4-5, petals absent, stamens 5. Fruit a berry.

Glenniaea africana (Radlk.) Leenh.

(*Melanodiscus oblongus* Taub.)

Tree 7-20m; bark smooth. Leaflets 4-8, with swollen petiolules, elliptic, base cuneate, apex acute or obtuse, the terminal ones largest, 3-17 by 1.5-7cm, glabrous (except for the veins.); the lowest ones small. Flowers reddish brown, in axillary or terminal panicles 5-10cm long; sepals 1.5-5mm long. Fruit orange, almost round or 2-lobed, up to 2cm long.

K47; 1-1800m; VIII *

Forest or woodland (Nzau, Kibwezi, Gongoni, Kwale); and possibly Beentje & Powys 4085 from Kijegge.

11. HAPLOCOELOPSIS

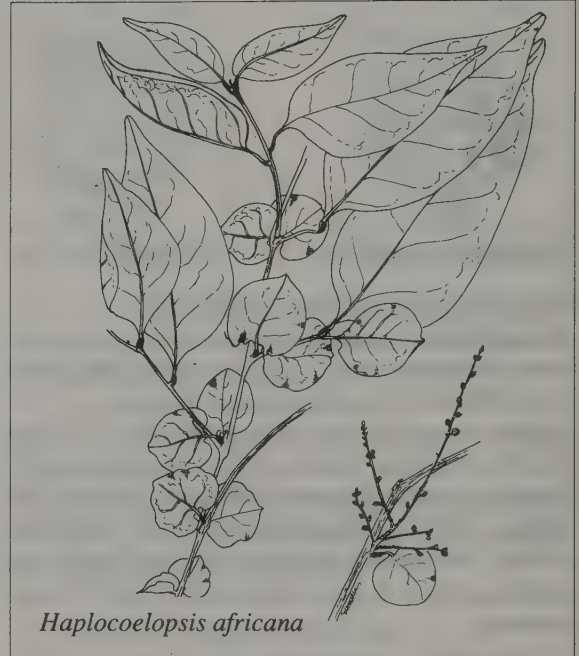
Leaves paripinnate, the leaflets opposite or alternate. Flowers unisexual, monoecious(?), sepals and petals 5, stamens 8. Fruit a 2-seeded drupe.

Haplocoelopsis africana F.O. Davies ined.

(*Melanodiscus* sp. nov. of KTS)

RARE

Tree 7-20m. Leaflets 4-8, elliptic, base (asymmetri-



cally) cuneate, apex bluntly acuminate, 5-15 by 2-6cm, glabrous; terminal leaflets largest, basal ones often much smaller and resembling stipules, at the base of the rachis. Flowers cream, in axillary racemes to 5cm long; petals 5-8mm long. Fruit yellow, bilobed or round, to 2.5cm when fresh.

K7; 1-500m; II*

Moist groundwater forest (Witu, Mangea, Shimba Hills, Marenji).

Muanyiza, Mtumbi mweusi (SWA), Gogiza (BON).

12. HAPLOCOELUM

Leaves paripinnate with opposite or alternate leaflets. Flowers dioecious. Sepals 5-6, petals absent, stamens 5-6. Fruit a drupe.

1. Leaflets 2-8, asymmetrical at base; coastal 2
- * Leaflets 8-32, asymmetrical as a whole; inland species 1. *H. foliosum*
2. Twigs glabrous or pubescent; fruit 3-cornered; leaf rachis narrowly winged 4. *H. trigonocarpum*
- * Twigs pubescent; fruit round or ellipsoid 3
3. Largest leaflets 2-8cm long; veins of leaflets conspicuous; wings of rachis continuous 2. *H. inoploeum*
- * Largest leaflets 1-3cm long; with inconspicu-

ous venation; rachis wing interrupted

3. *H. mombasense*

1. *Haplocoelum foliolosum* (Hiern) Bullock

Shrub or tree 3-10m; trunk often gnarled; bark smooth, grey. Leaves often borne on short shoots; leaf rachis often narrowly winged; leaflets 8-32, very asymmetric, elliptic, base cuneate or obtuse, apex obtuse or emarginate, basal ones smaller than the terminal pair, which is 1-4 by 0.5-2cm, glabrous or somewhat pilose. Flowers often precocious, cream, in dense axillary bundles (actually a congested polychasium); sepals about 2mm long. Fruit orange, ellipsoid to almost round, 15-22mm long.

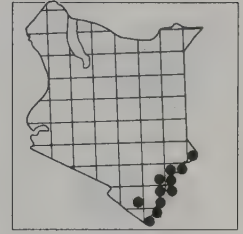
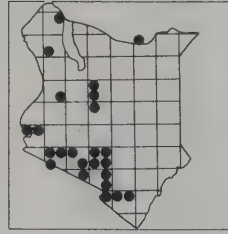
K124567; (550)900-1800m; VII, IX-X *

Evergreen bushland, along (seasonal) rivers, in wooded grassland on rocky outcrops, semi-evergreen woodland and forest margins; may be thicket-forming.

Chana (BOR), Mukumi (KAM), Se'et (KIP), Ol-Matasuya (MAA), Mriokwo (PKT), Elbilep (TUR). The wood is very hard, and used for building and furniture-making. The fruit is edible.

2. *Haplocoelum inoploeum* Radlk.

Shrub or tree 2-12m with gnarled trunk and smooth or rough (in older trees) grey bark. Leaves often on short



Haplocoelum foliolosum* . *Haplocoelum inoploeum

shoots, with winged rachis; leaflets 2-4, elliptic, base asymmetrically cuneate, apex obtuse and emarginate; the upper larger than the lower and 3-8 by 1.5-3.5cm, glabrous. Flowers greenish cream, precocious, in dense clusters; sepals 1.5-2mm long. Fruit yellow, ellipsoid, 12-20mm long.

K7; 1-500m; III-IV, X-XII *

Dry forest margins, coastal evergreen thicket, thick bushland.

Muchumbi, Mfungu-Tanzu (SWA, GIR), Mchumbi-kihuku (BAJ), Tokohoji (BON), Bubuyu (GAL). The fruit is edible.

3. *Haplocoelum mombasense* Bullock RARE

Tree to 10m; leaflets 4-8, the upper (largest) about 5-4cm long.

K7; 1-500m; -*

Kenyan collections: Mombasa anno 1884, Kaya Segu, Kaya Dagamra. Near the shore, or on riverbanks in thickets. Kuchar 13565 from Boni might be this species; as might Ochung 9 (along Tana R.) and Schenkel 77 (along Galana R.).

Luke (pers. comm.) informs me this is much more common than indicated.

4. *Haplocoelum trigonocarpum* Radlk.

RARE, ?VULNERABLE

Shrub or tree 4-6m. Leaflets 2-8, ovate or elliptic, base asymmetrically cuneate/obtuse, apex obtuse and emarginate; lowermost leaflets small (ca. 1cm), uppermost 3-7 by 2-3.5cm, glabrous. Flowers yellow, in dense axillary clusters; sepals 2-4mm long. Fruit red, 3-angled, 10-13mm long.

K7; 1-300m; -*

Map next page

In (semi) evergreen bushland or thicket.

Mfungu-Tanzu, Mchumbi (SWA).

13. LECANIODISCUS

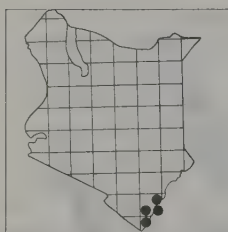
Diocious. Leaves paripinnate, with opposite or alter-



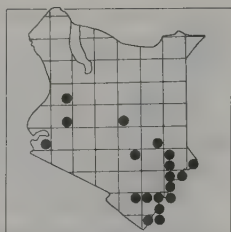
M.E.Church

Haplocoelum foliolosum (Hiern) Bullock

a: fruiting branchlet ($\times 1$). b: flowering branchlet from σ plant ($\times 1$).
c: σ flower ($\times 4$).
a: from Greenway 9176; b & c: from Jarrett 107.



*Haplocoelum
trigonocarpum*



*Lecaniodiscus
fraxinifolius*

nate leaflets. Flowers: sepals 5, petals absent, stamens 8-12. Fruit a capsule.

***Lecaniodiscus fraxinifolius* Bak.**

Tree 5-18m; bark fairly smooth, grey. Young leaves orange. Leaflets 4-12, elliptic or (ob) ovate, base cuneate or rounded (sometimes slightly asymmetric), apex blunt or rounded, margin undulate in dried plants, 4-11 by 2-5.5cm (the lowermost the smallest), glabrous or nearly so, sometimes glandular. Flowers yellow-green, in axillary racemes; sepals 2.5-3mm long. Fruit yellow or pinkish, ellipsoid, 10-12mm long.

K3457; 1-1200m; II-VI, IX, XI-XII

In coastal forest or woodland; inland always riverine or along seasonal watercourses.

Mkunguma (SWA, GIR), Mapumbi (BAJ), Chona

(BON), Mnyandakanda (DUR), Motobwi (ILW), Riangata (LUO), Matompa (ORM), Muhumbe (PKM), Chanah (SOM). Wood hard, used in building.

Note: I see the subspecies *vaughanii* and *scassellatii* as superfluous.

14. LEPISANTHES

Leaves paripinnate, with opposite or alternate leaflets. Flowers monoecious, unisexual; sepals 5, petals 5, stamens 5-10. Fruit of 1-2 mericarps.

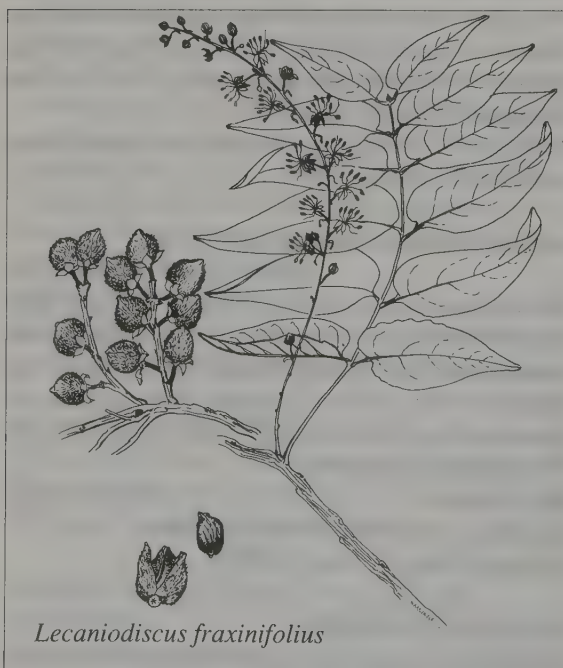
***Lepisanthes senegalensis* (Poir.) Leenh.**

[*Aphania senegalensis* (Poir.) Radlk.]

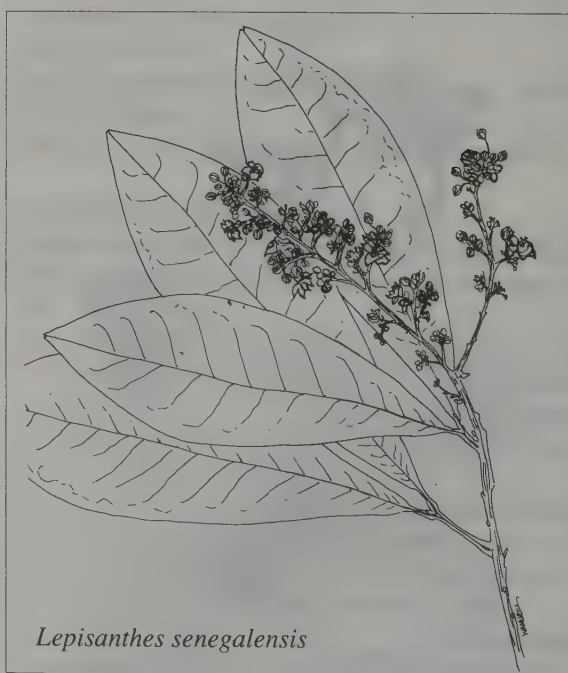
Tree 6-10m, evergreen; bark smooth, pale greybrown. Leaflets 2 (East of rift) or 4-6 (West of rift), the top pair always opposite, elliptic, base cuneate and slightly asymmetrical, apex blunt or rounded, 8-19(23) by 3-6(9)cm, glabrous. Flowers yellow-green, in terminal or axillary panicles to 16cm long; petals 3-4mm long. Fruit red, the mericarps ellipsoid, 12-15mm long.

K1234567; 1-1900m; III-IV, VII-IX, XI-XII

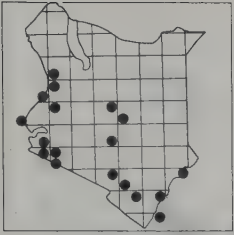
Riverine forest; on the coast also in forest near the sea. Muqanto (ILW), Oleragai (MAA), Musaretsi (LUH), Ochul (LUO), Iikisiriko (SAM), Kisriku (TUR). Wood medium hard, resembling walnut, used for building and furniture. Fruits and leaves are poisonous to goats



Lecaniodiscus fraxinifolius



Lepisanthes senegalensis

*Lepisanthyes senegalensis**Majidea zanguebarica*

and sheep; flowers are poisonous to fish.

15. MACPHERSONIA

Leaves bipinnate. Flowers dioecious; sepals 5, petals 5, stamens 7-8. Fruit a berry.

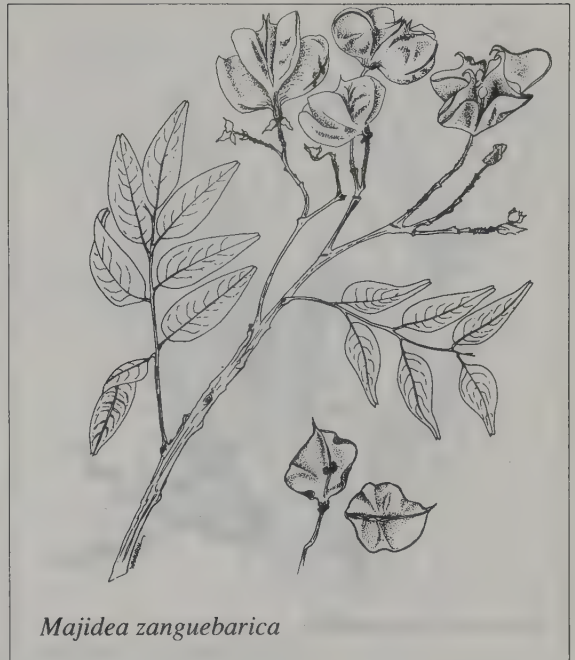
Macphersonia gracilis O. Hoffm.

var. *hildebrandtii* (O. Hoffm.) Capuron

Shrub or tree 2-4m; rarely climbing. Leaves with 4-10 pairs of pinnae, each pinna with 6-32 alternate leaflets; leaflets asymmetric and resembling those of *Albizia*, 10-25 by 4-8mm, glabrous or nearly so. Flowers white or pink, in axillary racemes; petals 1-1.5mm long. Fruit red or purple, round, 12-15mm.

K7; 1-400m; -*

Bushland on coral near Shimoni and on Mangea.

*Macphersonia gracilis**Majidea zanguebarica*

6. MAJIDEA

Leaves paripinnate; indument stellate-hairy. Flowers monoecious, unisexual; sepals 5, petals 4, stamens 7-8. Fruit a capsule.

Majidea zanguebarica Oliv.

Tree 9-25m; bark smooth, grey. Leaflets 8-14, opposite or alternate, base asymmetrically cuneate, apex bluntly acuminate, 3-9 by 1.5-4cm, glabrous. Flowers pink or red, in (sub)terminal panicles with leafy bracts; petals 4-6mm, quickly falling. Fruit brown, reddish-pink inside, 3-angled and -valved, 2-3 by 2.5-3.5cm. K7; 1-500m; I, V, VII, X-XII *

Riverine, or in (groundwater) forest.

Mlanyuni, Kmonga (SWA).

17. PANCOVIA

Leaves paripinnate. Flowers mono- or dioecious. Sepals 5, petals 4, stamens 7-11. Fruit of 1-3 drupelets.

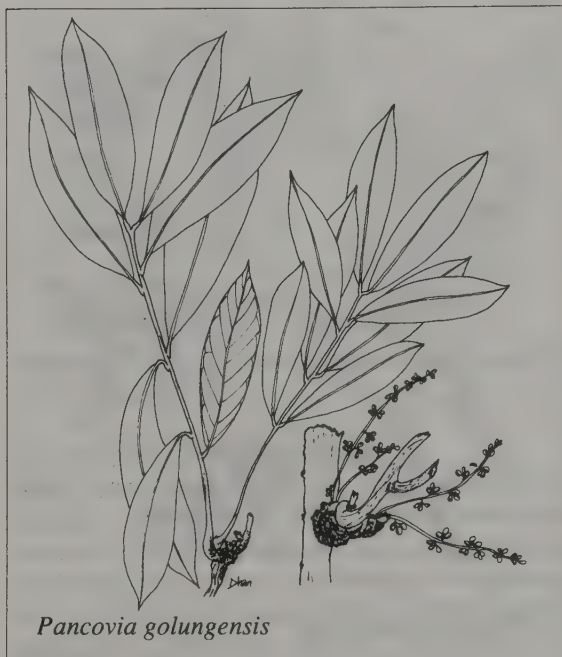
1. Leaves with 3-5 pairs of leaflets, glandular beneath

1. *P. golungensis*

* Leaves with 2 pairs of leaflets, not glandular

2. *P. hildebrandtii*

Note: *P. sp. aff. ugandensis* FG Davies ined. has recently been found at Gongoni Forest on the coast (Robertson & Luke 5964); red-hairy inflorescence.



1. *Pancovia golungensis* (Hiern) Exell & Mendonca
Tree 12-18m. Leaflets 4(-10?), elliptic, base cuneate, apex acuminate, 6-14 by 2-4.5cm, glabrous, glandular. Flowers white, in racemes to 10cm from 1-year old wood; petals about 3mm. Fruit drupelets ellipsoid, 9-12mm long.

K7; Kasigau forest (1250-1400m) and Witu, Mangea, Dzombo and Muhaka forest (1-500m); IV *

2. *Pancovia hildebrandtii* Gilg

Similar to *P. golungensis* but with fewer leaflets.

K7; known from Mida and Mwele Mdogo forest, 1-400m; II, IV *

Moist forest.

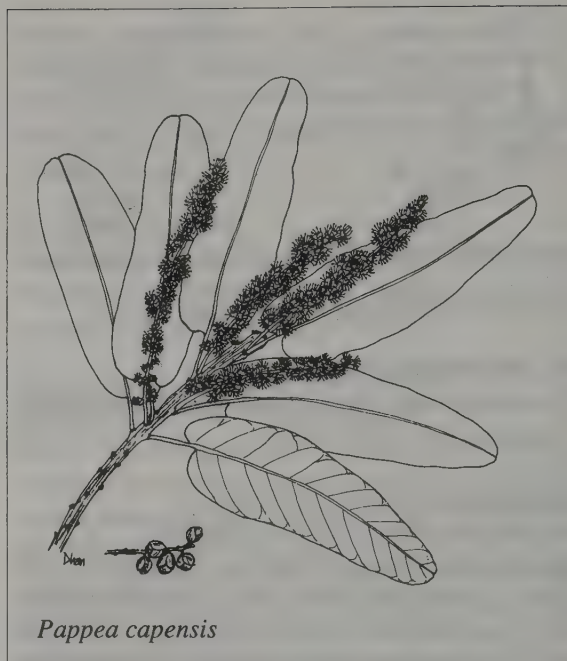
Note. The type (not seen) is from Voi river (anno 1877).

18. PAPPEA

Leaves simple. Flowers dioecious; sepals 5, petals 5, stamens 8. Fruit a 1-3-coccus capsule.

Pappea capensis Eckl. & Zeyh.

Shrub or tree 2-9m. Bark smooth and grey, or somewhat corrugated. Leaves usually on short shoots, elliptic, base rounded to subcordate and unequal, apex rounded or emarginate, margin entire or sharply serrate,



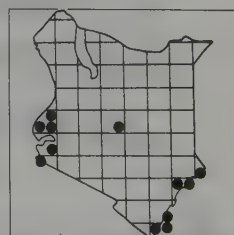
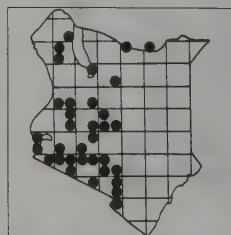
rate, 4-12(15) by 2-5(9)cm, (scabridulous-) puberulous beneath, glandular. Flowers yellow-green, in racemes to 10cm long; petals up to 1mm. Fruit pink, round (occ. with 2 semi-aborted cocci at base), 8-10mm.

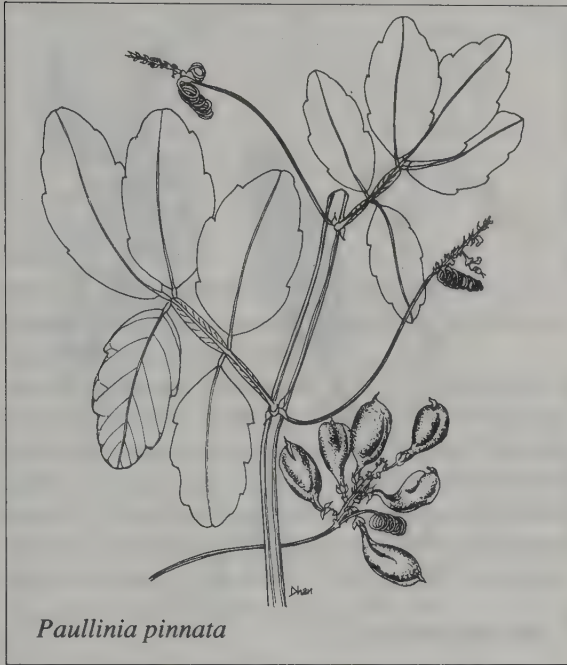
K1234567; 1050-2300m; II-III, V-IX, XI-XII (VIII)
Usually in rocky sites in bushy or wooded grassland or semi-evergreen bush- or woodland.

Pika (BOR), Mongo wa mbule (DIG), Mubaa, Kiva (KAM), Ngonyat (KIP), Okuoro (LUO), Orkisikongu, Oltimigomi (MAA), Dilikoni (MER), Biriokwo (PKT, TUG), Esel (SOM), Etolelk (TUR). The bark decoction is emetic. Wood hard. Seed edible.

19. PAULLINIA

Climbing by coiled tendrils at base of inflorescence. Leaves with winged rachis, and opposite leaflets,





paripinnate. Flowers functionally unisexual; sepals 5, petals 4, stamens 8. Fruit a 3-valved capsule.

***Paullinia pinnata* L.**

Scandent shrub or liana 3-6m (probably more.). Leaflets 5, elliptic or (ob)ovate, base cuneate, apex obtuse or acuminate, margin dentate or distantly lobed, 4-13 by 2-5cm, glabrous except for the nerves. Flowers white or cream, in long-stalked racemes; petals 4-5mm long. Fruit reddish, obconical, 16-24 by 8-12mm.

K3567; 1-1500m; II-III, VI, VIII, XII *

Riverine forest, on the coast also on forest margins away from water.

Mbugu (SWA), Mongo wa Mbule (DIG), Wananda (LUO). Possibly a fish poison; used to make fish traps, as the plant is durable in water; used to make rope.

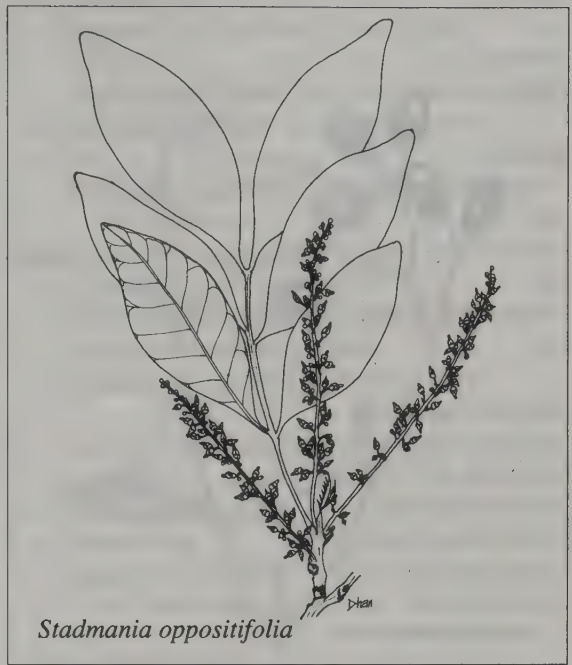
20. STADMANIA (*Stadmannia*)

Leaves paripinnate. Flowers functionally unisexual; sepals 5, petals absent, stamens 8. Fruit 2-3-coccous.

***Stadmania oppositifolia* Poir.**

(*S. sideroxylon* DC.)

Tree 16-20m; bark smooth, flaking yellow/brown. Leaflets 4-8, (sub)opposite, elliptic, base asymmetri-



cally cuneate, apex obtuse or emarginate, 9-14 by 3-6cm, glabrous (except midrib), minutely glandular. Flowers yellow-green, in axillary racemes to 12cm long; sepals minute. Fruit with round cocci, 10-12mm. K7; forest at Diani, Chale I. and Kirao (Vanga); I * Mfundu (SWA). Wood very hard and tough.

21. ZANHA

Leaves paripinnate. Flowers dioecious; sepals 4-6, petals absent; stamens 4-7. Fruit a drupe.

1. Leaf-rachis (at least near base) and fruit pubescent

1. *Z. africana*

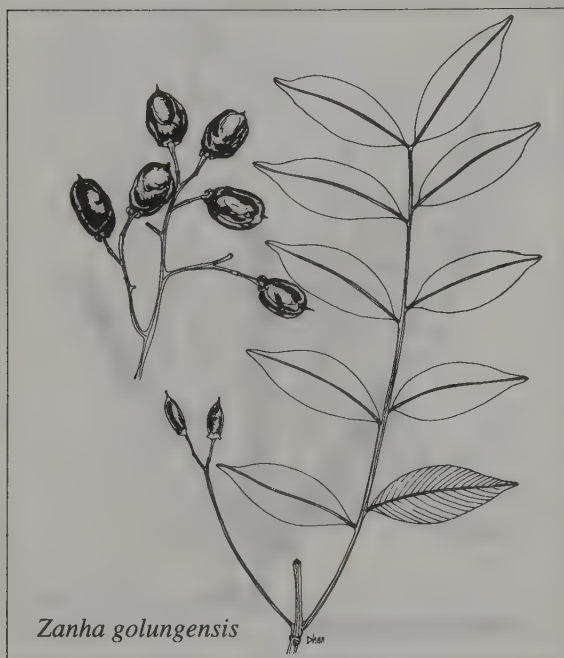
- * Leaf-rachis glabrous or nearly so; fruit glabrous

2. *Z. golungensis*

1. *Zanha africana* (Radlk.) Exell
(*Dialiopsis africana* Radlk.)

Tree to 8(12?)m; bark grey, peeling in flakes. Leaflets 6-10, usually alternate, elliptic, base obtuse to subcordate, apex obtuse, margin entire or crenate-serrate, the uppermost largest, 5-12 by 2-6cm, more or less pubescent beneath. Flowers greenish, in terminal short cymose clusters. Fruit orange, ovoid, 20-25mm long. K4; known from Makueni and ? Katumani, from wooded grassland (?)

Mkalya (STAND), Mikolekya (KAM).



2. *Zanha golungensis* Hiern

Tree 12-18m; bark reddish. Rather like *Z. africana*, but with the leaflets glabrous, and their apices often acuminate.

K7; 300-400m; I *

Moist forest: Shimba Hills and Mrima.

202. MELIANTHACEAE

(by Quentin Luke)

Leaves alternate, pinnate, stipulate. Flowers slightly irregular, in racemes. Petals 5, stamens 4-6. Fruit a capsule, seeds arillate.

1. BERSAMA

Rachis of pinnate leaves round to broadly winged. Stipules large, rather quickly caducous. Petals densely hairy. Capsule woody, 4-5-lobed & -seeded. Arils large and waxy.

Bersama abyssinica Fres.

Shrub or tree 1.5-24 m; bark smooth to rough, splitting lengthwise. Leaves clustered at branch ends (which show conspicuous leaf scars), to 1 m, with 5-10 pairs of (sub-) opposite leaflets, these lanceolate, oblong to ovate, base broadly cuneate to rounded, sometimes decurrent, often slightly unequal, apex acuminate to

acute, entire to serrate, sessile to shortly stalked, (3.5) 6-14 (22) by (1) 2-6 (8) cm, the uppermost leaflets the largest. Inflorescence of terminal or axillary racemes, dense, erect or drooping; flowers pink/white to cream, sweet-smelling. Capsule splitting into 4-5 lobes revealing a white interior and bright red seeds with yellow arils.

Characters are very variable, but two subspecies can be distinguished.

1. Leaf rachis winged; capsules usually > 2cm long with pointed apex, golden hairy. Leaves and inflorescence usually hairy
 - ssp. *paullinioides*
- Leaf rachis wingless or only slightly winged; capsule < 2 cm long, globose, usually red-velvety; leaves normally glabrous
 - ssp. *abyssinica*

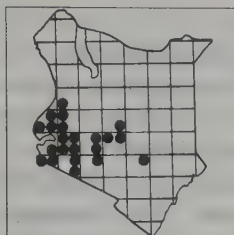
- ssp. *abyssinica* Verdc.

Stamens 5; disc annular, pentagonal or 4-lobed; capsule often grooved.

K3456; 1150-2550 m; I-XII (III, XI)

- ssp. *paullinioides* (Planch.) Verdc. var. *engleriana* (Gürke) F. White

Stamens 4 (5); disc ^-shaped or 4-lobed (with small side lobes); capsule smoother than in ssp. *abyssinica*. Leaflets mostly sessile with (in Kenya) small white



hairs.

K2/3,5; 1350-2400 m; I-VII, XI-XII (VI, XI)

Both ssp.: Upland grassland, dry and wet montane and riparian forest glades and edges.

Murumia-Andu, Muthandi (KIK), Cheptoroguet, Ororuwet (KIP), Omubamba (KIS), Shirikamabinga, Shiviambinga-Mekundi (LUH), Olobaye-Tiongata (MAA), Kipset, Kapsagas (MAR), Muthanda-Thandi (MER), Kibuimetiet (NAN), Kapsagas, Kipsagas (MAR), Kipteleliet, Kipuimetuet (NDO), Morgenet, Sigirowo (SEB), Kipumetiet (TUG). Wood soft, not durable; leaves poisonous to stock.

205. ANACARDIACEAE

Plants usually producing gums, resins or latex. Leaves alternate or (in *Ozoroa*) occasionally whorled, without stipules. Inflorescence of axillary and/or terminal panicles or racemes. Flowers 3-5 merous. Fruit a drupe, with a 1-5-seeded stone.

1. Leaves with stellate hairs 2
- * Leaves glabrous or with simple hairs 3
2. Bark stringy, not flaking; stamens 8 2. *Lannea*
- * Bark smooth, flaking; stamens 10-16 8. *Sclerocarya gillettii*
3. Leaves 1-foliolate 4
- * Leaves with 3-37 leaflets 6
4. Leaves silky-hairy and shiny beneath, often whorled 3. *Ozoroa*
- * Leaves glabrous, alternate 5
5. Leaves 6.5-18 by 4-10cm 1. *Anacardium*
- * Leaves 2-6 by 1.5-4cm 8. *Sclerocarya gillettii*
6. Leaves with hairy pits (domatia) in vein-axils beneath 2. *Lannea schweinfurthii*
- * Leaves without domatia 7
7. Leaves 3-foliolate 8
- * Leaves 5-40-foliolate 9
8. Species of dry bushland in Garissa area; inflorescence less than 2cm long 8. *Sclerocarya gillettii*
- * Widespread species; inflorescence 3-25cm

- long 6. *Rhus*
9. Leaflets 20-40 per leaf, 4-8mm wide 7. *Schinus*
- * Leaflets either fewer, or wider (usually both) 10
10. Leaf rachis winged; leaves paripinnate 4. *Pistacia*
- * Leaf rachis not winged; leaves imparipinnate 11
11. Leaflets with asymmetrical base; inflorescence a panicle 12
- * Leaflets with symmetrical base; inflorescence more or less unbranched 13
12. Western species; inflorescence axillary 5. *Pseudospondias*
- * Eastern/coastal species; inflorescence on older wood 9. *Sorindeia*
13. Bark smooth; leaflets 10-15 by 5-7cm; fruit 6-8mm long 2. *Lannea welwitschii*
- * Bark cracked; leaflets 1-9 by 0.7-3.5cm; fruit 25-75mm long 8. *Sclerocarya*

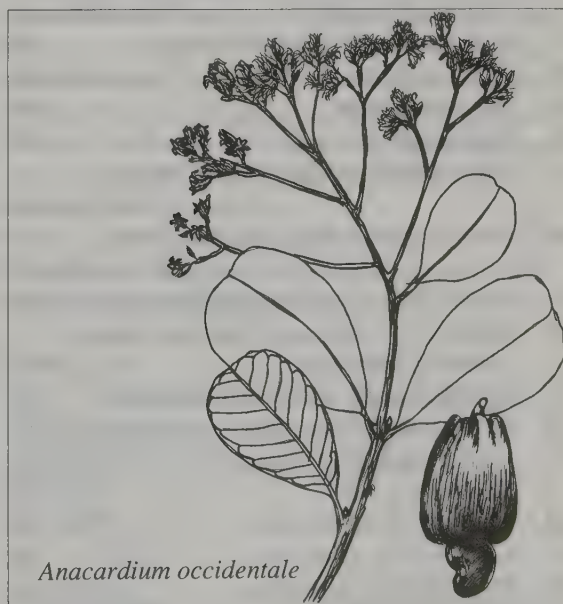
1. ANACARDIUM

Anacardium occidentale L.

Shrub or tree to 10m; bark rough, grey. Leaves simple, obovate, 6.5-18 by 4-10cm, glabrous. Flowers yellowish or reddish, in panicles to 25cm long. Fruit: the cashewnut.

K47; 1-900m; V, VIII, XI *

Originally from tropical America, the cashew has been



Anacardium occidentale

planted at the coast, and may be found in old cultivations.

Cashewnut (TRADE), Mkanju (SWA), Mukoloso (KAM). Bark contains tannin; the ripe nut yields a black dye.

2. LANNEA

Deciduous. Bark tough, often used for string. Leaves imparipinnate, often with stellate indument; leaflets (sub)opposite. Flowers often precocious, dioecious; flowers in spike-like panicles, 4-merous. Fruit a drupe, with 3-4 persistent style-bases.

1. Flowers present 2
- * Fruits present 11
2. Inflorescence axis glabrous or sparsely hairy 3
- * Inflorescence axis tomentose 4
3. Petals 1-2mm long 3. *L. greenwayi*
- * Petals 3-4.5mm long 8. *L. schweinfurthii*
4. Inflorescence branched, to 20cm long; coastal forests 10. *L. welwitschii*
- * Inflorescence unbranched (rarely 1-2 branches near the base) 5
5. Petals about 1mm long 6
- * Petals over 2mm long 7
6. Inflorescence 1-4cm long; eastern species 1. *L. alata*
- * Inflorescence 4-12cm long; western species 2. *L. fulva*
7. Inflorescence to 22cm long; western species (also in Chyulus) 7. *L. schimperii*
- * Inflorescence less than 5cm long 8
8. Calyx glabrous; NE Kenya 5. *L. malifolia*
- * Calyx tomentose 9
9. Bark rough 10
- * Bark smooth, spongy; western species 4. *L. humilis*
10. Petals 2.5-3mm long; pedicels 0-6mm 9. *L. triphylla*
- * Petals 3-5mm long; pedicels 0-1mm 6. *L. rivae*
11. Leaflets 7-15, less than 1cm long, crenate-lobed in upper half 1. *L. alata*
- * Leaflets usually over 1cm long, entire 12
12. Leaflets whitish- or rusty-tomentose beneath 13
- * Leaflets glabrous or pubescent, but not whitish or rusty 17
13. Leaflets 1-3, rarely more 14
- * Leaflets 5-21, rarely less 16
14. Fruit glabrous or nearly so 2. *L. fulva*

- * Fruit densely stellate-hairy 15
- 15. Leaves usually 1-foliolate; fruit 10-14mm long; young branches often over 5mm across 6. *L. rivae*
- * Leaves usually 3-foliolate; fruit 6-9mm long; shoots less than 5mm across 9. *L. triphylla*
- 16. Leaflets 7-21, 1-5 by 0.8-3cm 4. *L. humilis*
- * Leaflets 5-11, 5-15 by 3-7.5cm 7. *L. schimperii*
- 17. Leaves crowded on flat spur shoots 18
- * Leaves spaced, on normal branches 19
- 18. Mature leaves glabrous, leaflets 1-4 by 1-3cm 3. *L. greenwayi*
- * Mature leaves puberulous, leaflets 1.5-8 by 1-5.5cm 5. *L. malifolia*
- 19. Leaflets with hairy domatia, 2-9 by 2-6cm 8. *L. schweinfurthii*
- * Leaflets without domatia (coastal forest) 10. *L. welwitschii*

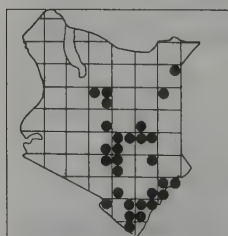
1. *Lannea alata* (Engl.) Engl.

Shrub or tree 1-6m; bark grey, smooth or rough; root-bark woolly. Leaves usually on spur knobs, with 7-15 leaflets, the rachis somewhat winged; leaflets obovate, crenate-lobed in upper half, 2-10 by 2-10mm, glabrous but for the midrib. Flowers yellow-green, in 1-4cm long "spikes"; petals whitish, about 1mm. Fruit greenish with purple bloom, rounded or ovoid, 9-14 by 9-11mm, glabrous.

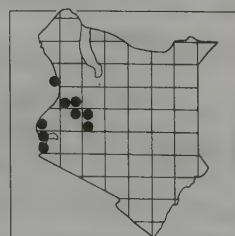
K147; 1-1200m; III-IV, VI, VIII, X-XII (XII).

Dry *Acacia-Commiphora* or *Acacia-Combretum* bushland, often on rocky sites; may be locally common, and can form pure stands.

Wa'Anreh (BOR), Mutungu (EMB), Sufi-bara (ILW), Mukolya, Ndungu (KAM), Kumudhe (ORM), Bejelo (REN), Lkinoi (SAM), Kumuhde, Wa-Anri (SOM). The fruit is edible, and the root-bark wool is used to stuff pillows; in the second world war it was used as "floatite" for lifejackets.



Lannea alata



Lannea fulva

2. *Lannea fulva* (Engl.) Engl.

Shrub or tree 3-9m; bark rough. Leaves with 1-3(5) leaflets, the terminal elliptic to slightly obovate, 4-10 by 3-6cm; dark green above, yellow-white stellate-tomentose beneath. Flowers yellow-green, in 4-12cm long "spikes"; petals about 1mm long. Fruit purple, ellipsoid, 7-10 by 5-7mm, glabrous.

K235; 950-1500m; V, IX *

Rocky bushland, wooded grassland or thickets.

Lumubumbu (LUH), Gorot, Lolotwa (MAR), Lolotwo (PKT). The fruit is edible; a bark infusion is employed against stomachache by the Pokot.

3. *Lannea greenwayi* Kokwaro

Shrub or tree 1-6m with arching branches; bark smooth, grey. Leaves 1-foliolate or 3(7)-foliolate on long shoots, leaflets elliptic to obovate, 1-5 by 1-3cm, stellate-pubescent when young but glabrescent. Flowers reddish, the male in very short spikes; female flowers unknown; petals 1-2mm long. Fruit ellipsoid, 6-9 by 4-5mm, glabrous.

K147; 50-600m; III *

Deciduous (*Acacia-Commiphora/Terminalia*) bushland on alluvium, or near waterholes.

Nyaldokh (REN).

4. *Lannea humilis* (Oliv.) Engl.

Tree 3-6m; flat topped; bark dark grey, spongy. Leaves spaced or on condensed lateral branches with 7-21 leaflets, these usually elliptic, 1-5 by 0.8-3cm, dark green above, whitish stellate-tomentose beneath. Flowers yellow, in 2-5cm long "spikes" on short side branches; petals 2.5-4.5mm long. Fruit ellipsoid, 9-13 by 5-8mm, grey-tomentose.

K23; 1200-1400m; III-IV *

Deciduous bush/woodland, where it often grows in sites of old habitations; dominant in Kongolai area.

5. *Lannea malifolia* (Chiov.) Saccl.

RARE

Tree 5-10m. Leaves clustered on short fat side branches, (1)3-7-foliolate; leaflets obovate or broadly elliptic, 1.5-8 by 1-5.5cm, dark above, pale green and stellate-puberulous beneath. Flowers on 3-5.5cm long "spikes"; petals 2-2.5mm long. Fruit obliquely ovoid, 7-8 by 5-8mm, glabrous.

K1; collected once at Melka Cumbisu near Ramu; X * *Acacia-Commiphora* bushland.

Kobesh (SOM).

6. *Lannea rivae* (Chiov.) Saccl.

(*L. floccosa* Saccl.)

Shrub or tree 1.5-6m with flat, spreading crown; bark grey, smooth or somewhat cracked. Leaves 1(-3)-foliolate, crowded on short fat branches; leaflets (ob)ovate or elliptic, 3-10 by 1.5-8cm, whitish stellate-tomentose beneath. Flowers often precocious, yellow with red tips, in 1-3cm long "spikes"; petals 3-5mm long. Fruit ovoid, 10-14 by 7-11mm, densely tomentose.

K12467; 350-2000m; III, V, VIII-XII (IX)

Wooded grassland, semi-evergreen and deciduous bushland; often in rocky sites.

Andarak (BOR), Kithaalwa (KAM), Ambrori (SAM).

The fruit is edible, and the bark is used for fibre.

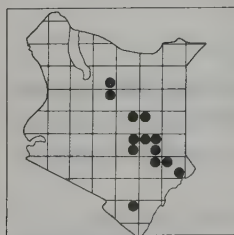
7. *Lannea schimperi* (A.Rich.) Engl.

Tree 3.5-7m with spreading crown; bark grey, usually fissured. Leaves with 5-11 leaflets spaced on long shoots or crowded on short fat branches; leaflets elliptic or ovate, 5-15 by 3-7.5cm, rusty-tomentose beneath. Flowers precocious, yellow-green, in up to 22cm long "spikes"; petals 3-5mm long. Fruit obliquely ovoid, 8-14 by 4-9mm, glabrous.

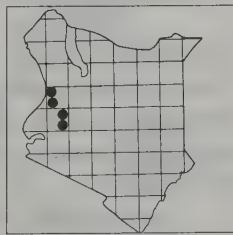
K23456; 1300-1900m; III *

Wooded grassland, usually in rocky sites.

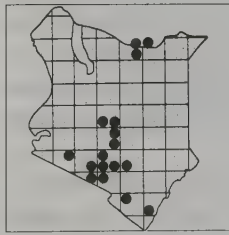
Kumugumbu, Mwembu (LUH), Kwetinget (NAN) Lolotwa (MAR), Elopojo (TUR).



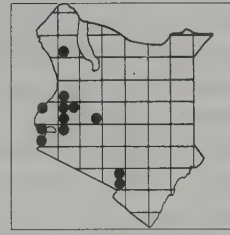
Lannea greenwayi



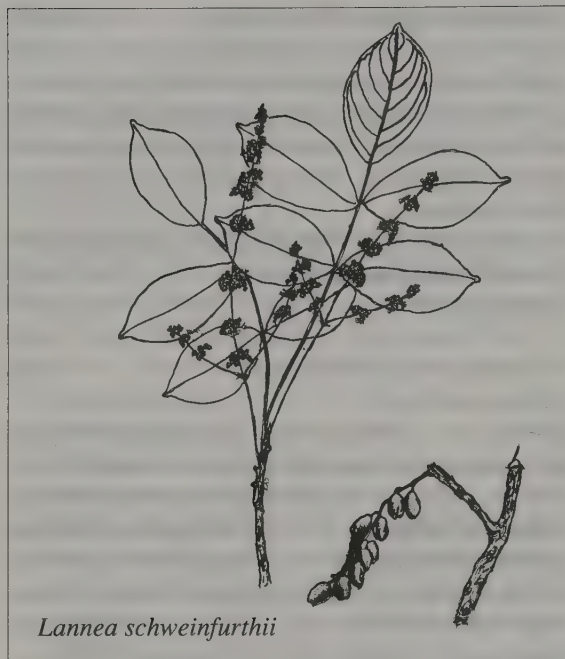
Lannea humilis



Lannea rivae



Lannea schimperi

*Lannea schweinfurthii***8. *Lannea schweinfurthii*** (Engl.) Engl.[*L. stuhlmannii* (Engl.) Engl.]

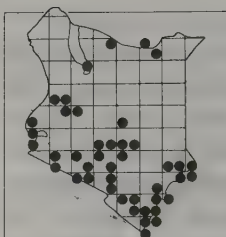
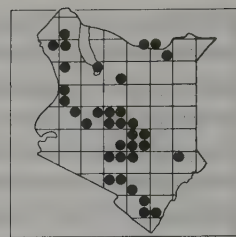
Shrub or tree 3-15(24)m with spreading crown; bark grey, fissured. Leaves with (1) 3-7(9) leaflets, these (broadly) elliptic or -ovate, 2-9 by 2-6cm, glabrous but for the hairy domatia. Flowers cream or greenish-yellow, in "spikes" or panicles 1-20cm long; petals 3-4.5mm long. Fruit pinkish, ellipsoid, 8-12 by 6-8mm, glabrous.

K1234567; 1-1850m; I-V, VII, IX-XII.

Wooded grassland, bushed grassland, semi-evergreen bushland, dry forest, woodland.

Muyumbu-Maji (SWA, GIR), Waharr (BON), Ile, Tile (BOR), Muraci (EMB), Mwethi, Muasi (KAM), Chepchai, Goinyet (KIP), Bongo, Kuogo (LUO), Oropando (MAA), Muhandarako (PKM), Moino (PKT), Den (SOM), Rubandi (TAV), Mwamo (TUG). The fruit is edible; the bark is used for making tea, rope, and a red-brown dye; a decoction of the bark is employed against headache and stomach-ache; the wood is used to make stools and grain pestles, and Embu blacksmiths used to prefer charcoal made from this tree for smelting iron.

Most of our material is var. *stuhlmannii* (Engl.) Kokwaro, with broad, obtuse leaflets but on the coast var. *acutifoliolata* (Engl.) Kokwaro occurs in forests:

*Lannea schweinfurthii**Lannea triphylla*

this has narrower leaflets with acuminate apices.

9. *Lannea triphylla* (A.Rich.) Engl.

Shrub or tree 2-6(10)m with spreading crown; bark grey, smooth. Leaves crowded on fat spurs, (1)3(5)-foliolate, the leaflets obovate or elliptic, 1-6.5 by 1-7cm, whitish stellate-tomentose beneath. Flowers yellow-green, in 1-3cm long "spikes"; petals 2.5-3mm long. Fruit red, ovoid, 6-9 by 5-8mm, densely tomentose.

K123467; 50-1650m; II-III, IX, XI *

Rich *Acacia-Commiphora* bushland or wooded grassland, usually in rocky places.

(H)andaraka (BOR), Kitherema (EMB), Muthaalwa (KAM), Korut (MAR), Hadaraku, Handaraku-goldja (ORM), Tapoyo (PKT), Nioldoh (REN), Lanberori (SAM), Anthri, Mu-anri, Wankhr (SOM), Tabuya (TUG), Etopojo (TUR). The fruit is edible, as are the roots; rope is made from the bark.

10. *Lannea welwitschii* (Hiern) Engl.var. *ciliolata* Engl.(L. *amaniensis* Engl. & K.Krause)

Tree 10-24m; bark smooth or finely ridged, grey. Leaves with (3)5-13 leaflets, these ovate, 10-15 by 5-7cm, glabrous or with a few stellate hairs. Flowers yellow, in panicles to 20cm long; petals 2.5-3mm long. Fruit ellipsoid, 6-8 by 4-6mm.

K7; 1-450m; I, III *

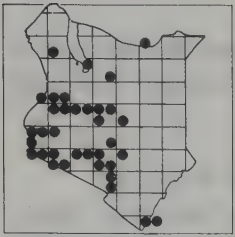
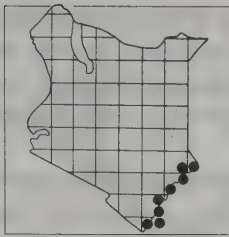
Dry or moist forest; Diani (common), Gedi, Jadini, Shimbas, Dzombo and Mrima Hill.

3. OZOROA

Plants with milky latex. Leaves simple, alternate or in whorls of 3, with many parallel nerves. Flowers dioecious, 5-merous, in axillary or terminal panicles. Fruit a drupe.

1. Leaves elliptic, with obtuse or acute apex; widespread

1. *O. insignis*

*Ozoroa insignis**Ozoroa obovata*

* Leaves obovate, with mucronate apex; coastal strip

2. *O. obovata*

1. *Ozoroa insignis* Del. ssp. *reticulata* (Bak.f.) Gillett [*Heeria reticulata* (Bak.f.) Engl.]

Shrub or tree 1.5-10m; bark dark grey, reticulately fissured. Leaves alternate or whorled in 3(-4), (narrowly) elliptic, base cuneate or rounded, apex obtuse or acute, 7-23 by 2-9cm, densely hairy and often silky-shiny beneath. Flowers white or cream, in panicles 5-17cm long; petals 2-4mm long. Fruit red to shiny black, transversely ellipsoid, 6-8 by 8-12mm.

K1234567; 1-2000m; I-IX, XI-XII (XII)

Wooded grassland, often on rocky hillslopes.

Garri (BOR), Msangasanga (DIG), Mugadi (KAM), Lemejwet (KIP), Madhari, Nyandumira (LUO), Olokunonoi (MAA), Mutungwa (MAR, TUG), Lon-

gononoi (NDO), Kromwo (PKT), Lokononoi (SAM), Chepkitowiondet (SEB), Lopsok-Orongole (TUR). A root decoction or bark infusion is employed against kidney trouble and diarrhoea by the Digo.

2. *Ozoroa obovata* (Oliv.) R. & A. Fernandes (*Heeria mucronata* sensu KTS)

Shrub or tree 3-9m. Leaves alternate or whorled in 3, obovate, base cuneate, apex rounded and often mucronate, 2.5-8 by 1.5-2.5cm, densely hairy and silky-shiny beneath. Flowers white, in panicles 4-8cm long; petals 2-2.5mm long. Fruit as in *O. insignis*.

K7; 1-300m; I-II, IV-VI, XI-XII

Bushland or dry forest/woodland on sand or coral.

Mwaalika (SWA), Mkagukayu (GIR), Kedula, Bangoe (BON), Msalasanga (DIG). The Giriama use a root decoction against stomachache.

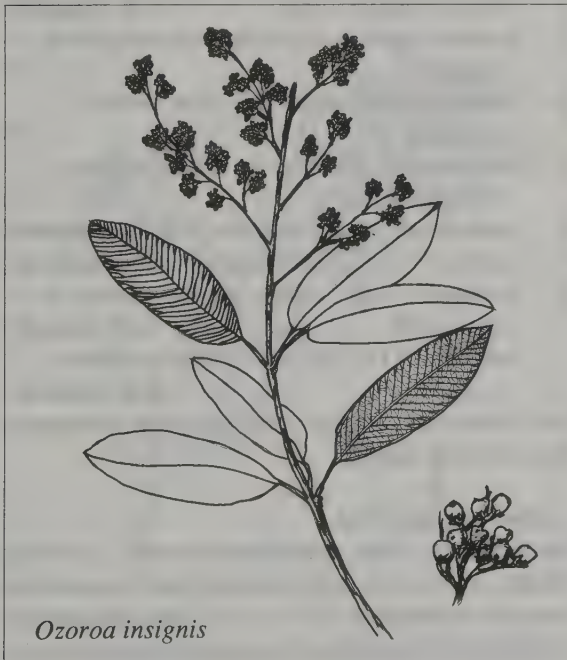
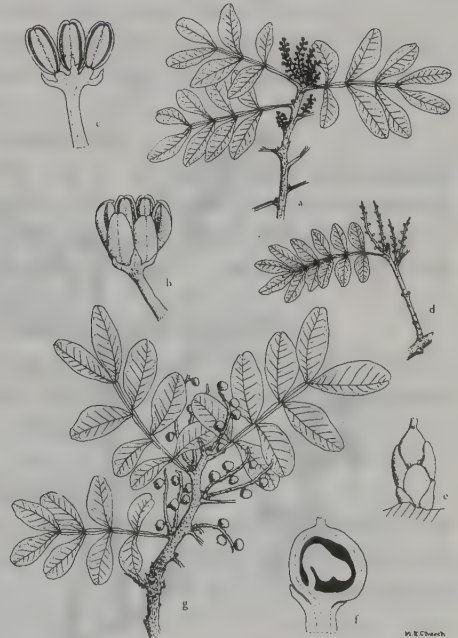
Note. Perhaps not distinct from *O. insignis*: in the Shimba Hills intermediates occur.

4. PISTACIA

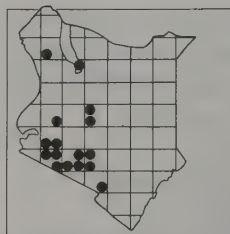
Leaves paripinnate. Inflorescence an axillary spike or raceme. Fruit a drupe.

Pistacia aethiopica Kokwaro

Shrub or tree 3-10(20)m, evergreen; bark resinous,

*Ozoroa insignis**Pistacia aethiopica* Lincx.

a: flowering branchlet from ♂ plant (× ½). b: ♂ flower (× 10). c: L.S. ♂ flower (× 10). d: flowering branchlet from ♀ plant (× ½). e: ♀ flower (× 10). f: L.S. ♀ flower (× 10). g: fruiting branchlet (× ½). a-c: from Napier 2325; d & e: from Gillett 4697; f: from Gardner 1290; g: from Porter 1111.

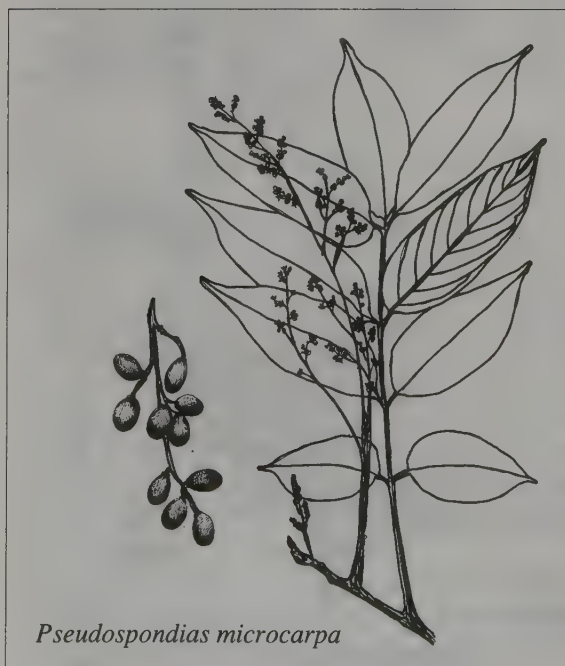
*Pistacia aethiopica*

rough, dark brown. Leaves aromatic, with 6-10 opposite leaflets (and rarely with a terminal one); rachis winged; leaflets 1-5 by 0.5-2cm, reddish when young, glabrous. Flowers dioecious, yellowish or cream with red tinge, in racemes 1-5cm long; petals absent, petal-like bracteoles less than 1mm long. Fruit red, round, 4-5mm.

K123456; 800-2400m; X-XII *

Dry forest (*Juniperus* or *Olea/Euclea* types) and associated evergreen bushland or thicket. More or less wiped out around Nairobi, as people cut it to get a gum which is chewed.

Musaa (KAM), Muhehete, Mucherere (KIK), Kibirir-gorokiet, Chepkorokwet (KIP), Ol-Daangudwa (MAA), Olongoronok, Iltorel, Lasamarai (SAM), Tulda (TUG). Twigs are used as toothbrushes; wood used for building poles; a root infusion is drunk as tea. The trunk yields a high quality mastic gum.

*Pseudospondias microcarpa*

5. PSEUDOSPONDIAS

Dioecious. Leaves imparipinnate, with alternate or opposite leaflets. Flowers 3-4-merous, in axillary panicles. Fruit a drupe.

Pseudospondias microcarpa (A. Rich.) Engl.

Tree 15-20(40)m, strongly buttressed; bark flaking, greyish yellow. Leaves with 5-17 leaflets, these elliptic or ovate, base asymmetric, apex acuminate, 5-20 by 3-8cm, glabrous or nearly so. Flowers whitish, in 10-40cm long panicles; petals 1.5-2mm long. Fruit blue-black, broadly ellipsoid, 15-25 by 10-18mm.

K5; 1100-1600m; XI *

Riparian-, lakeside-, and swamp forest; known from Malaba, Watende, Port Victoria and Bukura.

Omishirinya (LUH), Ochol (LUO). Wood white, not durable.

6. RHUS

Leaves 3-foliolate. Flowers small, usually uni-sexual, 5-merous, in axillary or terminal panicles. Fruit a drupe.

1. Branchlets grey or white; leaves glabrous or nearly so 2. *R. natalensis*

- * Branchlets dark-coloured, or if grey, then leaves hairy 2

2. Leaflets glabrous, or only midrib and veins hairy; margins entire 1. *R. longipes*

- * Leaflets evenly hairy, with entire or toothed margins 3

3. Leaflets usually large, with clear tertiary venation 5

- * Leaves small, less than 6 x 2.5cm; tertiary venation faint 4

4. Leaflets with entire margins 3. *R. quartiniana*

- * Leaflets with toothed margins 5. *R. tenuinervis*

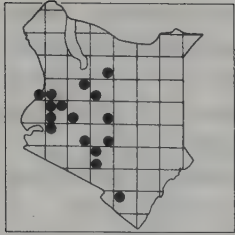
5. Leaflets 6-18 by 3-11cm, broadly toothed in upper half 4. *R. ruspolii*

- * Leaflets 4-11 by 2-6.5cm, entire or slightly toothed 6. *R. vulgaris*

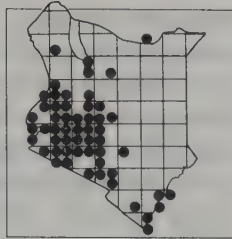
Note: there does not seem to be a good way to separate these last two species.

1. *Rhus longipes* Engl.

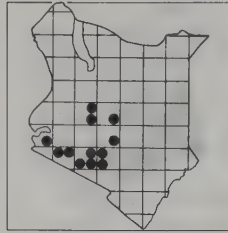
Shrub or tree 2-12m, sometimes scandent. Leaflets elliptic or obovate, base cuneate, apex rounded to acute, the terminal 4-12.5 by 1.5-7.5cm, the laterals slightly smaller, glabrous or somewhat hairy on mid-



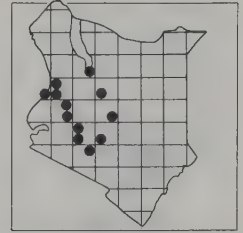
Rhus longipes



Rhus natalensis



Rhus quartiniana



Rhus ruspolii

rib and veins. Flowers greenish-white, in 3-25cm long panicles; petals 1-1.5mm long. Fruit red, round or kidney-shaped, 3-7mm long.

K13567; 1000-2400m; II-III, VI, VIII, X, XII *

Riverine forest; less often in wooded grassland or forest margins.

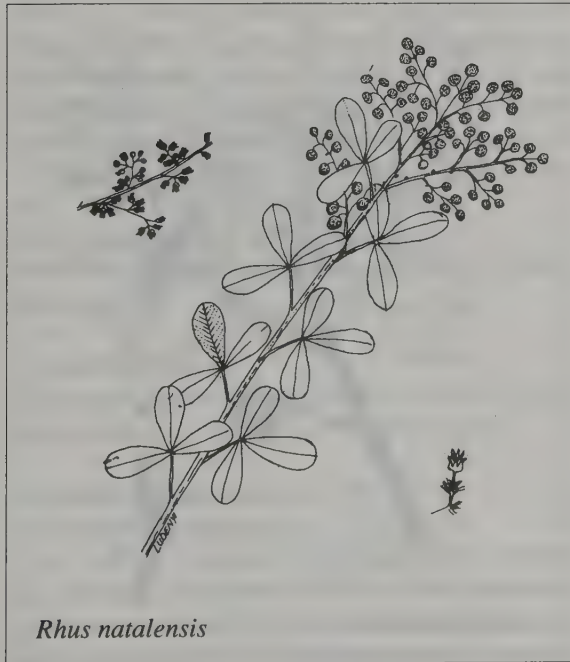
Seria (MAR), Siriat (NAN).

Note. I consider this as a single, variable species.

2. *Rhus natalensis* Krauss

Shrub or tree 1.5-6m; bark of branchlets pale grey or whitish. Leaflets elliptic or obovate, base cuneate, apex obtuse to emarginate, 2.5-9 by 1-3.5cm, glabrous or sparsely pubescent. Flowers greenish-cream, in up to 12cm long panicles; petals 1-1.5mm long. Fruit orange, ellipsoid, 5-6mm across.

K1234567; 1-450m (coast) & 1050-2700m; I-XII.



Rhus natalensis

Dry forest margins, (semi-)evergreen bushland, thickets, and wooded grassland.

Mlischangwe (SWA), Dabobiss (BOR), Idamudu (BON), Mugwa-Nyahi (DIG), Dabobbessa (GAB), Mutheu, Kitheu (KAM), Suriet, Sirondet (KIP), Muthigio (KIK), Sangla (LUO), Olmisigiyoi (MAA), Seria (MAR), Siryewo (PKT), Lmisigiyoi (SAM), Sirwo, Siryande (TUG), Ekadetewa (TUR), Siriat, Monjororoyat (NAN), Ilka-Adeis (SOM), Kitariki (TAI). The fruit is edible.

3. *Rhus quartiniana* A.Rich.

Shrub or tree 2-9m. Leaflets elliptic, base cuneate, apex obtuse or acute, 2-6 by 0.6-2.5cm, sparsely pubescent (and scaly when young). Flowers yellow-green, in 3-10cm long panicles; petals less than 1mm long. Fruit red, round, 3-4mm.

K13456; 700-1950m; I-VI, VIII, XII

Riverine forest, -bushland or -woodland.

Sangla Rau (LUO), Olmisigiyoi (MAA).

4. *Rhus ruspolii* Engl.

Shrub or tree 1-4.5m. Leaflets obovate, base cuneate, apex rounded or obtuse, margins crenate in upper half, 6-18 by 3-11cm, short-pubescent. Flowers yellow, in 10-28cm panicles; petals 1-1.5mm long. Fruit red, round, 3-4mm.

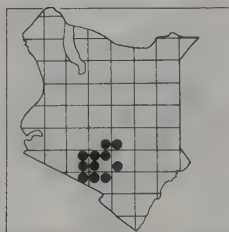
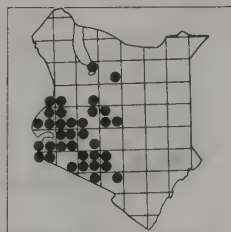
K1234; 1500-2400m; I, IV-VIII, X-XII.

Dry forest margins, evergreen bushland and -thicket. Mushishuna (EMB), Muthigio (KIK), Njowaruwa (SEB), Siwopyoyon, Sirwa (TUG).

5. *Rhus tenuinervis* Engl.

Shrub or tree 1-5.5m. Leaflets elliptic or obovate, base cuneate, apex obtuse or rounded, margins crenate in upper half, 1-4 by 0.8-2.5cm, short-pubescent. Flowers in 2-7cm long panicles; petals 1-1.5mm long. Fruit red, round, 5-7mm.

K46; 850-1500m; III, XI-XII *

*Rhus tenuinervis**Rhus vulgaris*

Wooded grassland, riverine bushland, or bushland on black cotton soil.

Kitheu (KAM). The fruit is edible.

6. *Rhus vulgaris* Meikle

(*R. tenuinervis* sensu KTS)

Shrub or tree 1-9m; bark smooth, dark brown. Leaflets elliptic or obovate, base cuneate, apex rounded or acute, 4-11 by 2-6.5cm, the laterals smaller than the terminal, densely pubescent; margins sometimes crenate. Flowers cream or greenish-yellow, in 5-20cm long panicles; petals about 1mm long. Fruit red, round 3-5mm.

K13456; 1200-2700m; I-XII.

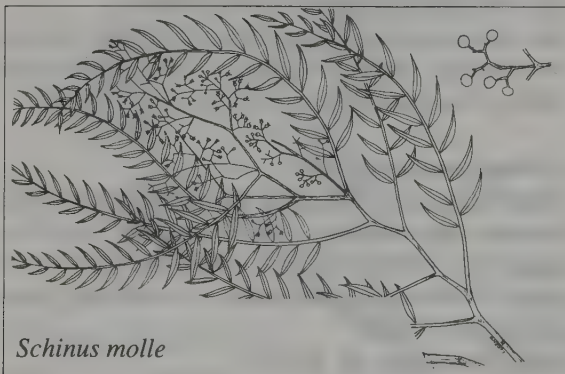
Wooded grassland, thickets, or (semi-)evergreen bushland or bushed grassland in rocky sites, dry forest margins.

Kitheu, Mutheu (KAM), Muthigio (KIK), Monchororiat, Siriat (KIP), Sangala-Madongo, Monjororoyat (LUO), Ol-Misigiyoioi, Ol-Munyushi (MAA), Murimuthu (MER), Njówaruwa (SEB). The fruit is edible; a fruit decoction is employed against diarrhoea.

7. SCHINUS

Schinus molle L.

Tree 3-15m, evergreen; bark deeply fissured, flaking;

*Schinus molle*

branchlets hanging. Leaves imparipinnate, with a winged rachis and 20-40 leaflets, these linear-lanceolate, margins entire or dentate, 2-5 by 0.4-0.8cm. Flowers whitish, in hanging panicles to 30cm long; petals about 2mm long. Fruit round, 5-6mm. Cultivated and gone wild at altitudes of 1400-2100m, in dry situations. Noticeable around Naivasha. Pepper tree (STAND). Fruits with peppery taste, possibly poisonous.

8. SCLEROCARYA

Dioecious. Leaves imparipinnate, with (sub-) opposite leaflets. Male flowers in axillary or subterminal racemes; female flowers 1-2 together; stamens 10-16; styles 3. Fruit a fleshy drupe.

1. Leaves with 7-37 leaflets

1. *S. birrea*

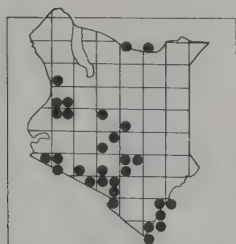
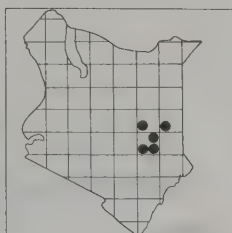
* Leaves with 1-3(-9) leaflets

2. *S. gillettii*

1. *Sclerocarya birrea* (A. Rich.) Hochst.
(incl. *S. caffra* Sond.)

Tree 3.5-15m; bark grey, cracked; branchlets thick. Leaves with 7-21 leaflets, these elliptic or (ob)ovate, 1-9 by 0.7-3.5cm, margins entire or (on young growth) serrate-dentate. Flowers whitish-purple to red, the males in 7-22cm long racemes, the females much shorter; petals 4-6mm long. Fruit yellow, obovoid,

*Sclerocarya birrea*

*Sclerocarya birrea**Sclerocarya gillettii*

2.5-7.5cm long.

- ssp. *birrea*: leaflets obtuse or acute at the apex, usually less than 3cm long.

K123467; 800-1800m; III, X *

- ssp. *caffra* (Sond.) Kokwaro: leaflets acuminate at the apex, usually over 3cm long.

K47; 1-1200m; IV, XI *

Both ssp: wooded grassland, riverine woodland, bushland on rocky hills.

Mngongo (SWA, DIG), Didissa (BOR), Muua (KAM), Ol-Mangwai (MAA), Mura (MER), Oroluo (PKT), Katetalum (SEB), Tololokwo (TUG). The fruit is edible; the wood is used to make bowls by the Pokot; a bark decoction is employed against dysentery, bad liver, and rheumatism by the Pokot.

2. *Sclerocarya gillettii* Kokwaro

RARE

Shrub or tree 2-5m; bark smooth, grey, flaking; branches not thick. Leaves 1-foliolate on short shoots or 3-7-foliolate on long shoots; leaflets broadly elliptic to -obovate, base cuneate to obtuse to truncate with small mucro, 2-6 by 1.5-4cm, glabrous or with a few stellate hairs. Flowers cream or red, in short panicles to 1.5cm; petals 1.8-2.5mm long. Fruit as in *S. birrea*.

K17; 50-300m; II *

Dry bushland on red sand. Endemic.

Huda-hudo loni (ORM), Dananiu (SOM). The fruit is edible.

9. SORINDEIA

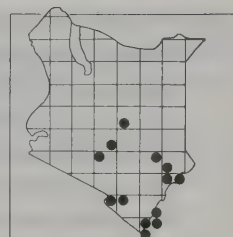
Dioecious. Leaves imparipinnate. Flowers in panicles; stamens 10-21; styles 1. Fruit a drupe.

Sorindeia madagascariensis DC.

(*S. obtusifoliolata* Engl.)

Tree 8-25m, evergreen; bark greybrown, flaking. Leaves with 7-15 alternate leaflets, these asymmetrically cuneate at base, rounded to acuminate at apex, 9-23 by 3-10cm (lower leaflets diminish in size), glabrous.

*Sorindeia
madagascariensis*

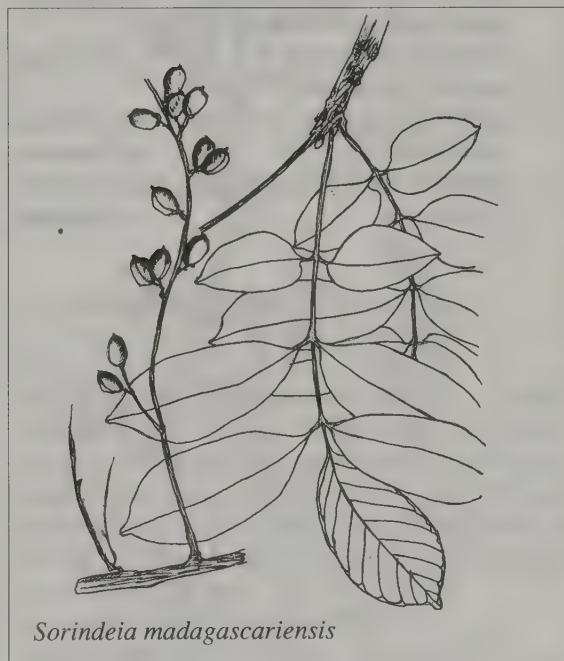


Flowers yellow with some pink near the base, in hanging panicles 20-95cm long from older wood; petals 2-4.5mm long. Fruit orange, ellipsoid, 15-25mm long.

K47; 1-1450m; I-III, VII-XI (IX)

Riverine forest, groundwater forest, on the coast also in forest not close to water.

Mtunguma, Mkunguma (SWA, DIG), Msansanza (DUR), Mwebebe (ILW), Nyambembe (PKM), Ngunguma, Mkunguruli (TAI), Mundaraha (TAV). The fruit is quite tasty.



Sorindeia madagascariensis

206. CONNARACEAE

Leaves alternate, without stipules. Sepals and petals 5, stamens 10 (sometimes + 5 rudimentary ones). Fruit of 1-5 free carpels.

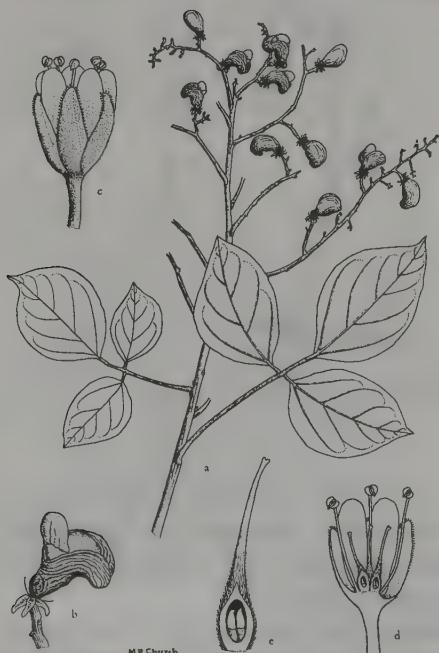
This treatment, and especially the keys, owe much to Messrs. C. Jongkind and R. Lemmers of Wageningen.

KEY TO FLOWERING PLANTS

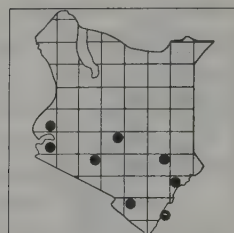
- | | |
|---|-----------------------|
| 1. Flowers present before the leaves | 5. <i>Rourea</i> |
| * Leaves and flowers present at the same time | 2 |
| 2. Leaves all 1-foliolate | 4. <i>Ellipanthus</i> |
| * Leaves with more than 1 leaflet | 3 |
| 3. One pistil per flower | 3. <i>Connarus</i> |
| * Five pistils per flower | 4 |
| 4. Leaves all 3-foliolate | 1. <i>Agelaea</i> |
| * Most leaves with more than 3 leaflets | 5 |
| 5. Leaflets 3-11 per leaf | 5. <i>Rourea</i> |
| * Leaflets 13-51 per leaf | 2. <i>Cnestis</i> |

KEY TO FRUITING PLANTS

- | | |
|---|-----------------------|
| 1. Fruits glabrous | 2 |
| * Fruits hairy | 3 |
| 2. Follicle somewhat compressed, and with a strongly constricted base | 3. <i>Connarus</i> |
| * Follicle neither compressed nor constricted at base | 5. <i>Rourea</i> |
| 3. Leaves all 1-foliolate | 4. <i>Ellipanthus</i> |
| * Leaves with more leaflets | 4 |
| 4. Leaflets ≥ 13 per leaf | 2. <i>Cnestis</i> |
| * Leaflets ≤ 9 per leaf | 5 |
| 5. Leaflets 3-9 per leaf; never more than 1 follicle per flower | 3. <i>Connarus</i> |
| * Leaflets 3 per leaf; usually more than 1 follicle per flower | 1. <i>Agelaea</i> |

*Agelaea heterophylla* Gilg

a: fruiting branchlet ($\times 1$). b: fruit ($\times 2$). c: flower ($\times 5$). d: L.S. flower ($\times 5$).
e: L.S. carpel ($\times 15$).
a & b: from Bally 8783; c-e: from Eggeling 6240.

*Agelaea pentagyna*

1. AGELAEA

Indument of fascicled hairs, appearing stellate. Leaves trifoliate, with oblique lateral leaflets. Inflorescence a terminal or axillary panicle.

Agelaea pentagyna (Lam.) Baill.

[*A. heterophylla* Gilg, *A. setulosa* Schellenb., *A. ugandensis* Schellenb.)

Scandent shrub or liana to 20m. Leaflets broadly elliptic, the terminal one with base rounded or cuneate, apex acuminate, 6-15 by 4-11cm, sparsely hairy beneath (denser on nerves). Flowers white, in terminal panicles 10-30cm long; petals 4.5-5.5mm long. Fruit red, obovoid, 14-20mm long; seed with white aril.

K47; 1-100m (coast) & 1200-2100m; IV, VII *
Moist forest, riverine forest (lower Tana, Muhaka). Mutangu (EMB), Kari, Muchosi, Miugu (KIK), Mubwasi, Otiyuom (LUO), Mukovo (MER).

2. CNESTIS

Leaves imparipinnate, with opposite leaflets. Inflorescence axillary, several together; stamens 10. Follicles 1-5 per fruit, red, densely hairy.

- | | |
|--------------------------|--------------------------|
| 1. Western shrub or tree | 1. <i>C. mildbraedii</i> |
| * Coastal liana | 2. <i>C. polyphylla</i> |

Cnestis mildbraedii Gilg

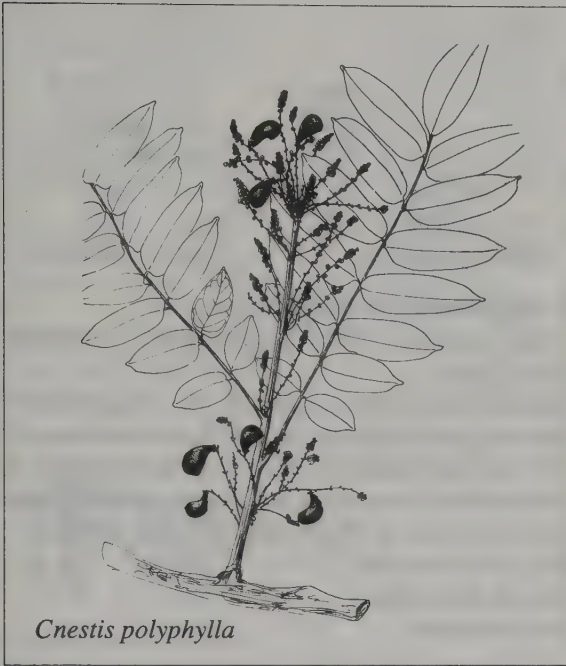
Largeshrub or small tree. Leaves with 25-37 leaflets, these 3.5-14 by 1.5-3cm. Inflorescences in racemes or panicles 7-17cm long; petals 5-6mm. Fruit narrowly ellipsoid, 30-35 by 10mm.

Collected once in Kakamega forest.

Cnestis polyphylla Lam.

Liana. Similar to *C. mildbraedii*, but leaves with 9-29 leaflets. Petals 2-4mm. Fruit oblique, 15-25 by 7-10mm.

K7, several collections from Diani-Jadini, in dry forest.

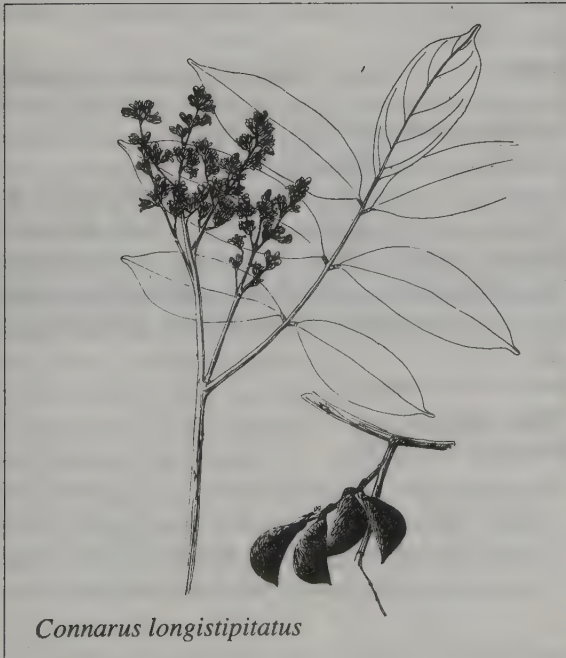


3. CONNARUS

Leaves imparipinnate, with opposite leaflets. Carpel solitary.

Connarus longistipitatus Gilg

Liana to 30m. Leaflets 3-5, elliptic, base rounded,

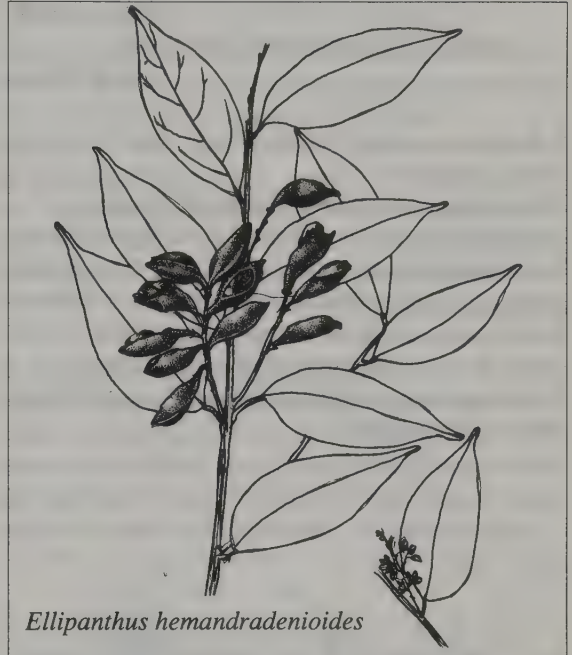


apex acuminate, 9-17 by 3-7cm, on the upper side with a few medifixed hairs. Flowers only known in bud, in pseudoterminal panicles to 8cm long. Fruit red, obliquely ovoid, beaked, to 3 by 2cm.

K7; Kwale, Longo Magandi and Mwele Mdogo, in moist forest.

4. ELLIPANTHUS

Leaves unifoliolate. Inflorescence axillary. Fruit a follicle.



Ellipanthus hemandradenioides Brenan RARE

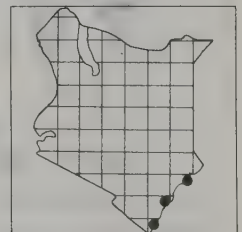
Shrub or tree, 4.5-10m. Leaves ovate, base broadly cuneate or rounded, apex acuminate, 6.5-13 by 2.5-6cm, sparsely hairy. Flowers white, in few-flowered panicles; petals 4.5-7.5mm long. Fruit brown or reddish, to 27mm long; seeds black, with white aril.

K7; 1-500m; X *

Dry forest; may be locally common.

Mwaanyiza (SWA), Mwaari, Moganji (GIR).

Ellipanthus hemandradenioides

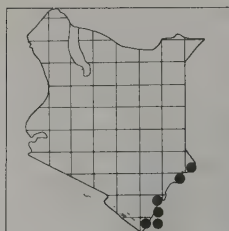
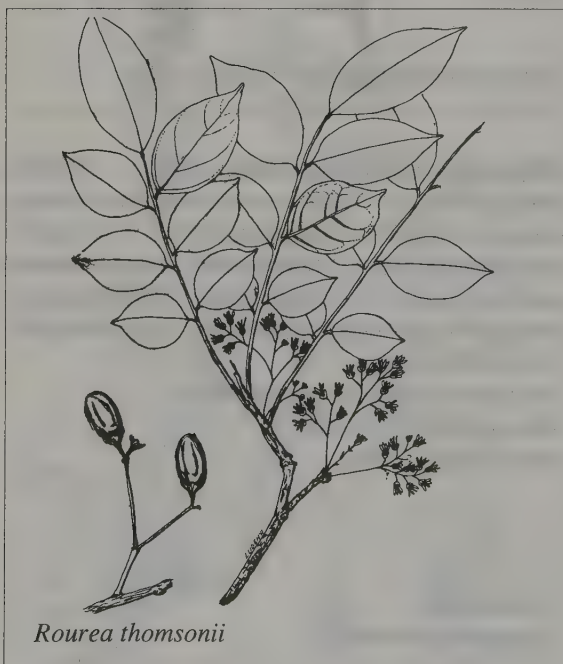
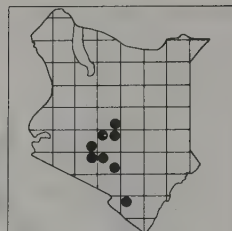


5. ROUREA

Leaves imparipinnate with (sub) opposite leaflets. Inflorescence an axillary panicle. Fruit a foliicle.

- | | | |
|----|---|--------------------------------|
| 1. | Leaflets 13-33 per leaf | 3. <i>R. orientalis</i> |
| * | Leaflets 5-11 per leaf | 2 |
| 2. | Plant from central Kenya, above 1000m | 4. <i>R. thomsonii</i> |
| * | Coastal plants from lower altitudes | 3 |
| 3. | (Scandent) shrub of coast north of Kilifi | 1. <i>R. coccinea</i> |
| * | Shrub or liana of Shimba Hills forest | 2. <i>R. minor</i> |

1. *Rourea coccinea* (Schum.) Benth. ssp. *boiviniana* (Baill.) Jongkind
Byrsocarpus boivinianus (Baill.) Schellenb.)
 (Scandent) shrub to 4m. Leaflets 4-8, elliptic or ovate, base rounded, apex acuminate, 2.5-6 by 1.5-4cm, glabrous; lower leaflets oblique. Flowers in racemes to 7cm long; petals to 12mm. Fruit yellow or red, ovoid, to 2 by 1cm; seeds black, with red aril. K7; known from Arabuko-Sokoke, Kivara and Boni.. Mkatu-Mkubwa (SWA).

*Rourea orientalis**Rourea thomsonii*

2. *Rourea minor* (Gaertn.) Alston
 [*Santaloides afzelii* (Planch.) Schellenb., *S. splendida* (Gilg) Engl.]

Shrub or liana 3-30m. Leaflets 4-10, ovate or elliptic, base rounded or broadly cuneate, apex acuminate, 5-10 by 3.5-6cm, glabrous. Flowers white or pinkish, in axillary fascicled racemes to 6cm long; petals to 8mm long. Fruit red, to 20mm long; seed with pale aril. K7; 200-350m; VIII *
 Shimba Hills forest.
 Seed aril edible.

3. *Rourea orientalis* Baill.

[*Byrsocarpus orientalis* (Baill.) Baker]
 (Scandent) shrub to 6m. Leaflets 12-28, elliptic, base rounded, apex rounded, 1.2-4 by 0.7-1.9cm, glabrous or nearly so. Flowers white or yellow, in racemes to 5cm long; petals 7-11mm long. Fruit as in *R. coccinea*. K7; 1-300m; IV *
 Forest.

4. *Rourea thomsonii* (Bak.) Jongkind

[*Jaundea pinnata* (Beauv.) Schellenb.]
 Liana to 25m. Leaflets 4-8, elliptic, base cuneate or rounded, apex acuminate, 4-16 by 2-7cm, glabrous. Flowers white or cream, in axillary or subterminal fascicled panicles to 10cm long; petals to 10mm long. Fruit red or yellowish, to 28mm long; seed with red aril. K47; 1450-2500m; - *
 Moist forest.
 Mutoigu, Kari (KIK).



209. CORNACEAE

1. AFROCRANIA

Leaves opposite, exstipulate. Flowers 4-merous, terminal; male flowers in sub-umbellate cymes; female flowers in umbels; petals valvate. Fruit a drupe.

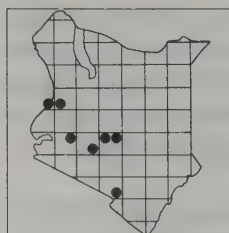
Afrocrania volkensii (Harms) Hutch.

Tree, 4-24m; bark rough, grey. Leaves pale green, elliptic, base cuneate, apex acuminate, 5-17 by 2.5-7cm, puberulous at least beneath, with domatia in vein-axils beneath; veins 4-5, curved and ascending. Flowers dioecious, many, greenish-yellow in dense inflorescences; peduncle 1-4cm long with caducous bracts; male flowers about 2mm long, female flowers about 6mm long. Fruit red turning black, ellipsoid, to 11 by 5mm, minutely pubescent.

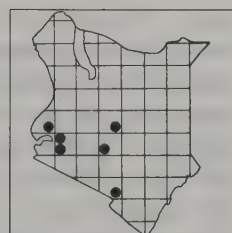
K2346; 2100-3200m; I, V-VII, XII *

Wet upland (e.g. *Ocotea*) forest or in bamboo zone. May be locally common.

Mukorombosi (STAND), Mucemeki, Mukorombothi (KIK), Mugonyone (MER), Tarakiet (NAN), Chum-nalilet (NDO), Sayit (PKT, MAR), Totokio (SEB). A timber tree; wood resembles that of the northern beech.



Afrocrania volkensii



Alangium chinense

210. ALANGIACEAE

Leaves alternate, often asymmetric at base, exstipulate. Flowers in axillary cymes, regular, 4-10-merous; ovary inferior. Fruit a drupe, 1-2-seeded.

1. ALANGIUM

1. Leaves asymmetrical, 5-7 veined from base

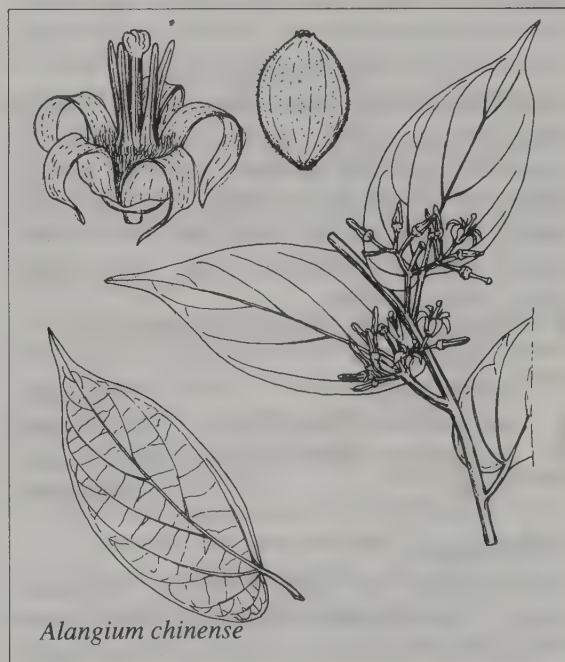
1. *A. chinense*

* Leaves symmetrical, 2-3 veined from base

2. *A. salviifolium*

1. *Alangium chinense* (Lour.) Harms

Tree 9-27m, bark smooth and grey. Leaves elliptic or ovate, base asymmetric, cuneate or subcordate (cordate in young trees), apex acuminate, 6-19 by 3-12cm (juvenile leaves larger), pubescent when young; main veins 4-6, curved and ascending; 5-7 veined from



base. Flowers in short, branched, axillary inflorescences; flowers cream or white, scented, 5-8-merous; buds cylindrical; petals 8-13.5mm with a patch of hairs inside near the base. Fruit yellow-green, globose or ellipsoid, 8-10 by 4-9mm, minutely pubescent.

K345; 1650-2250m; II-III, VI *

Wet upland forest or semideciduous upland forest. (Quick-growing, possibly a pioneer species).

Mugaithu (KIK), Kubusto (KIP), Mutobolo (LUH).

Wood soft, used for sword- and knife sheaths and arm ornaments.

2. *Alangium salviifolium* (L.f.) Wangerin
ssp. salviifolium

Shrub or tree 4.5-18m; bark light brown, scaly-fissured. Branches often with spines up to 1.2cm long. Leaves elliptic or obovate, base cuneate, apex acute, obtuse, or shortly acuminate, 5-15 by 2-8cm, pubescent when young; main veins 5-9, curved. Flowers in short subsessile axillary inflorescences; flowers cream, 5-10-merous; petals 12-28mm long, glabrous or pubescent inside. Fruit purple, ellipsoid, 9-22mm long, shortly pubescent.

K7; 1-750m; XI *

Riverine or groundwater forest (lower Tana R., Taveta forest).

Mununachi (PKM). Young stems are used to make spears.

212. ARALIACEAE

Trees, shrubs or lianas, sometimes epiphytic. Leaves mostly alternate, crowded near branch-ends, simple or compound, often with differences between those of mature and juvenile parts of the plant; stipules often present. Inflorescence much-branched. Flowers small, regular, sometimes dioecious; petals 4-10, valvate. Fruit a berry or a drupe.

1. Leaves palmately lobed, or digitately compound

* Leaves pinnate

2. Inflorescence of simple spikes

* Inflorescence of umbellules arranged on main axils

2. *Polyscias*

1. *Cussonia*

3. *Schefflera*

1. *CUSSONIA*

Trees or shrubs with very brittle wood. Leaves palmately lobed or digitately compound; stipule connate with petiole for some of its length. Inflorescence of

spikes or spike-like racemes; flowers 4-8mm across, (4-)5-merous; styles 2(-4). Fruit subglobose or somewhat compressed.

NOTE: Leaves from coppice shoots or young trees may have a very different shape from those of mature trees and should NOT be used in keying.

1. Leaflets pinnatifid or partly pinnate

3. *C. spicata*

* Leaflets or leaflobes toothed but not pinnatifid

2

2. Leaves lobed or compound, pubescent beneath (especially when young)

1. *C. arborea*

* Leaves compound, glabrous or slightly hairy

3

3. Leaflets stalked; inland species

2. *C. holstii*

* Leaflets sessile or nearly so; coastal species

4. *C. zimmermannii*

1. *Cussonia arborea* A. Rich.

Tree 3-6(-12)m, branching candelabra-like; bark greyish, fissured; leafy branches 1-3cm across. Leaves deeply palmately lobed or digitately compound with sessile leaflets, petiole 9-45cm; leaflobes or leaflets 5-7, (ob)ovate, base (in leaflets) cuneate or attenuate, apex acuminate, margin subentire, crenate or serrate, 5-26 by 3-16cm, densely hairy when young, sparsely sandpapery above and pubescent (rarely subglabrous) beneath when mature. Flowering spikes 5-20 together, up to 40cm long, with greenish flowers. Fruit ovate, 3-5mm long, glabrous or puberulous.

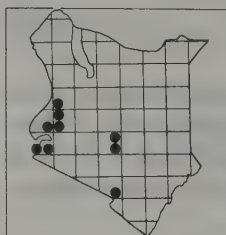
K23456; 1100-2400m; I, III-VI *

Combretum woodland or wooded grassland; also reported from forest.

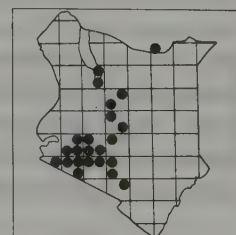
Malendi, Marende (KAM), Kitandawabasia (LUH). Wood soft, white.

2. *Cussonia holstii* Engl. var. *holstii*

Tree 4-15m, bark rough and grey, peeling in oblong scales; leafy branches 0.5-1.5cm across. Leaves digitately compound with petiolulate leaflets (leaves pal-



Cussonia arborea



Cussonia holstii

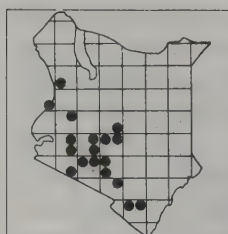
mately lobed on young plants or coppice shoots), petiole (5) 13-40cm; leaflets 3-7, ovate, base cuneate, rounded, truncate or subcordate, often asymmetrical, apex acuminate, margins serrate or crenate, 4-16 by 1.5-9cm, glabrous or puberulous. Flowering spikes 5-15(30) together, up to 25cm long, with greenish-yellow flowers. Fruit whitish or yellow, ovate, 4-6mm long, glabrous or puberulous.

K13456; 1050-2550m; I-II, IV-V, VII, IX-XII

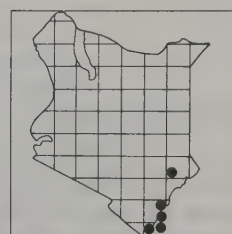
Evergreen bushland on rocky slopes, grouped tree grassland, dry forest edges (rarely wet forest edges). Abratu (BOR), Malende (KAM), Morogoro (KIK, MER), Sokwet, Lulukwet (KIP), Ol-Orur (MAA), Olbolorio (SAM), Wadad (SOM), Muaya (TAI), Soya (TUG). Hollow trunks are used to make beehives. Wood soft, white, used for doors by Kipsigis. Bark decoction used by Maasai and Meru for driving out the placenta.

3. *Cussonia spicata* Thunb.

Tree 6-15m with a thick bole, branched only near the top of the tree; bark grey. Leaves digitately compound with sessile or petiolulate leaflets, petiole 10-67cm; leaflets 6-12, pinnatifid to partially pinnate, base cuneate or attenuate, apex acuminate, margin dentate, 6-35 by 1.5-19cm, glabrous or nearly so. Flowering



Cussonia spicata



Cussonia zimmermannii

spikes 5-18 together, pedunculate, peduncles 4-14cm, spike 6-14cm long and quite broad, with greenish-white flowers. Fruits obovoid, up to 12mm long, glabrous or minutely puberulous.

K23467; 1450-2500m; II, IV, VII, X, XII *

Dry upland forest (edges), riverine forest, grouped tree grassland, wet upland forest. Pioneer?

Cheluptet (CHE), Mwenyiere (KIK), Sokwet (KIP), Olurur (MAA), Jeleikta (MAR), Muengera (MER), Lolorobo (NDO), Alakanta (PKT), Borillo (SAM), Kidadongo, Kidongadi (TAI), Soya (TUG). Wood very perishable, used to make mole traps by the Kikuyu.

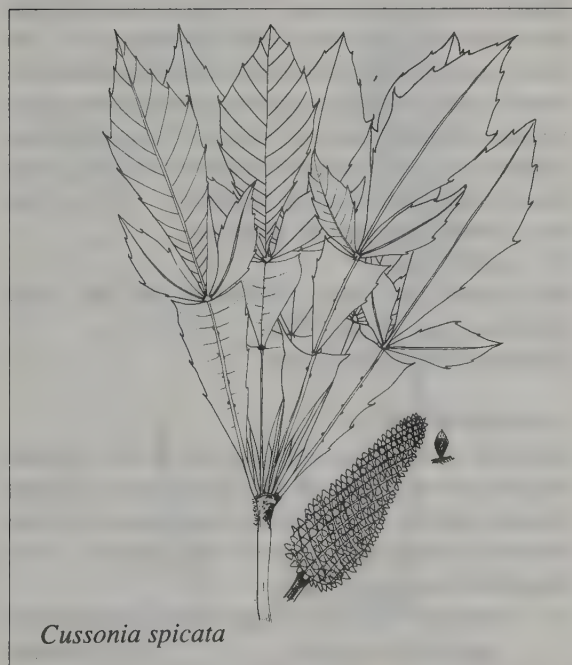
4. *Cussonia zimmermannii* Harms

Tree 6-25m; bark scaly, grey. Leaves digitately compound with sessile leaflets, petiole 12-50cm; leaflets 5-9, elliptic or obovate, base cuneate or attenuate, apex acute or acuminate, margin subentire or crenate, 5-15(25) by 2-6(8)cm, glabrous or nearly so. Flowering spikes 5-14 together, 8-34cm long with greenish or white flowers. Fruits greenish-white, globose or obconical, to 6mm long, glabrous or puberulous.

K7; 1-400m; I-II *

Forest (edge) or in evergreen coastal bushland.

Mbomba Maji, Mpapayi-Mwitu (SWA), Atame (BON), Mnyala (DIG). Used for making coffins.



Cussonia spicata

2. POLYSCIAS

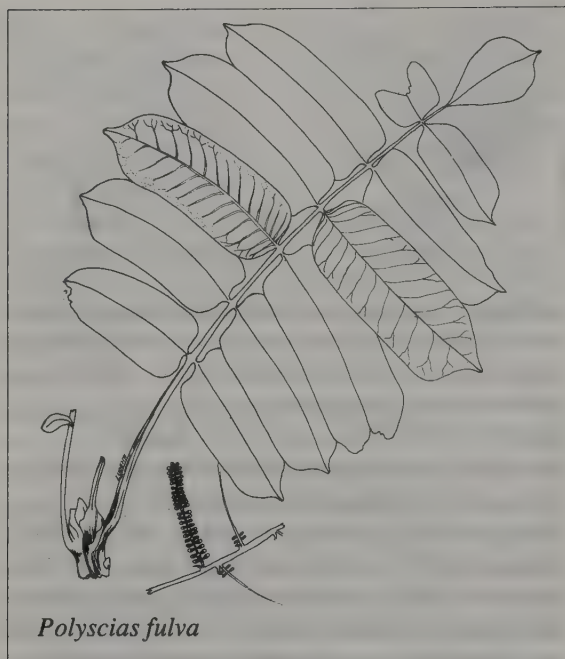
Tree with pinnate leaves. Inflorescences paniculate; flowers 5-merous. Fruit laterally compressed or terete. All parts aromatic. NOTE: Sapling leaflets can be twice as large as leaflets of mature trees.

1. Leaflets tomentose beneath 2
- * Leaflets glabrous 3. *P. stuhlmannii*

2. Flowers distant along the 3-7cm long secondary inflorescence branches 1. *P. fulva*

- * Flowers in umbellules on the top up to 2.5cm long secondary inflorescence branches

2. *P. kikuyensis*



1. *Polyscias fulva* (Hiern) Harms

[*P. ferruginea* (Hiern) Harms]

Tree 18-25m, deciduous; bole very straight, branching like a candelabra; leafy branches 1-1.5cm thick. Leaves pinnate, usually with an end leaf, to 80cm long; leaflets in (3)6-7(12) pairs, ovate or elliptic, base broadly cuneate, rounded or subcordate, apex acuminate or apiculate, 7-15 by 3-6.5cm (in young leaves up to 2 x as large), dark green and stellate-pubescent to glabrescent above, pale yellowbrown and stellate-tomentose below. Inflorescence with primary branches to 70cm long, with secondary branches 3-7cm long; flowers yellow-cream. Fruits (ob)ovoid or globose, 3.5-6 by 3-4.5mm, ribbed, glabrous or sparsely hairy.

K4567; 1400-2300m; VI, X, XII *

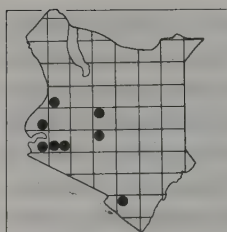
Wet upland forest or riverine forest.

Ownit (NDO), Mwanzu, Mwanzu (LUH), Nyakom-Ondiek (LUO), Soiyet (NAN). Wood soft, white, used to make beehives by the Dorobo.

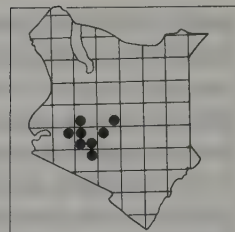
2. *Polyscias kikuyensis* Summerh.

RARE

Tree 15-24m, bole up to 1.4m across, with candelabra-like branching; bark grey, smooth; leafy branches 1-1.6cm thick. Leaves pinnate, usually with an end leaf, to 55cm long; leaflets (3)4-5(6) pairs, ovate or elliptic, base rounded or subcordate, apex acute or acuminate,



Polyscias fulva



Polyscias kikuyensis

8-14 by 3.5-6cm, stellate-pubescent to glabrescent above, pale yellow-brown and stellate-tomentose below. Inflorescence with primary branches to 40cm long, secondary branches to 2.5cm long; flowers yellow, in umbellules. Fruit black, (sub) globose or ellipsoid, 4-7.5mm across, ribbed, densely stellate-hairy.

K34; 1750-2750m; *

Wet upland forest, often in valleys. ENDEMIC to central Kenya.

Mutati (TRADE & KIK), Muachet (NDO), Aounet (KIP), Olyalilingi (MAA), Aoun (MAR & ELG), Mukurukuru (MER), Ewondet, Kwaluk, Lamed (SEB), Aul, Auwe (TUG), Mukanya, Mungorusa (TAI). Wood soft, white, used for making boxes.

3. *Polyscias stuhlmannii* Harms var. *stuhlmannii*

RARE

Shrub (fide Gardner) or tree 4.5-20m with candelabra-like branching; bark grey; leafy branches 0.5-1.2cm thick. Leaves imparipinnate, 40-60cm long; leaflets 4-5 pairs, ovate, elliptic, or obovate, base cuneate, apex rounded or emarginate, 5-12 by 2.5-5.5cm, glabrous. Inflorescence with primary branches to 25cm long; flowers reddish-brown (?), in umbels. Fruits urceolate, 7-9mm long, sulcate, glabrous.

K7; 1450-1850m; *

Wet upland mist forest. ENDEMIC to Taita Hills, Usambara and Uluguru Mts.

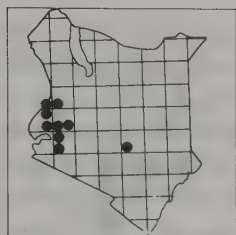
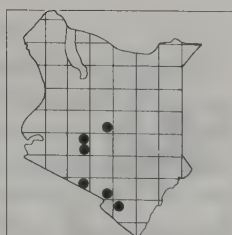
Kidongadi, Idudongo (TAI).

3. SCHEFFLERA

Trees or lianas, often epiphytic (at first?). Leaves digitately compound, with stipule often partly connate with the petiole. Inflorescences paniculate with the flowers in umbellules; petals 5-10; styles 5-8. Fruit subglobose or ovoid.

1. Petiolules 0.6-2.3cm long; flowers sessile; leaf apex obtuse (acute)

3. *S. volkensii*

*Schefflera abyssinica**Schefflera myriantha*

* Petiolules 1.5-12cm long; flowers stalked; leaf apex acuminate 2

2. Leaf with up to 15 secondary veins

1. *S. abyssinica*

* Leaf with more than 20 secondary veins

2. *S. myriantha*

1. *Schefflera abyssinica* (A.Rich.) Harms

Tree or epiphyte 4.5-20(30)m, bark corky, deeply fissured, greyblack or brown. Leaves with petiole 12-38cm long; leaflets 5-7, ovate or elliptic, base rounded or subcordate, apex acuminate, margin crenulate, 9-20 by 4.5-12cm, glabrous; petiolules 3-12cm long. Inflorescence with up to 25 spikes together, each spike up to 40cm long with small stalked umbellules of yellow-green or orange-yellow flowers, each about 3mm long. Fruits red, urceolate or subglobose, up to 5mm across,

sulcate, glabrous or puberulous.

K3(?4)5; 1700-2250m; III *

Wet upland forest or riparian forest.

Muonyere, Muonyere (KIK), Ewaat (KIP), E-Wa (TUG).

Note: the record for K4, Mbere, in *Combretum* wooded grassland, alt. 1200m seems very wrong. The specimen (Braun KSS 1005) however is certainly this species. I suspect the plant is mislabelled.

2. *Schefflera myriantha* (Bak.) Drake

(*S. polysciadia* Harms)

Shrub, tree or liana, 1.2-20m. Leaves with petiole 6-22cm long; leaflets 4-8, elliptic, (ob)ovate or nearly rotund, base rounded or subcordate, apex acuminate, margins often thickened and sometimes repand, 10-24 by 4-14cm, glabrous; petiolules 1.5-8cm long. Inflorescences 1-5 together, 6-16cm long, pedunculate and branched with small stalked umbellules of greenish-yellow flowers, each about 3mm long. Fruits urceolate or subglobose, up to 5mm across, sulcate, glabrous or puberulous.

K467; 1450-2250m; II, V, VII, IX-X, XII *

Wet upland forest (edge).

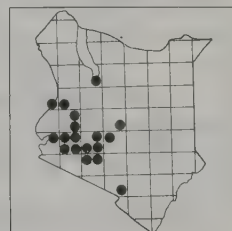
Musaki (KIK), Kiwawano (TAI).

3. *Schefflera volkensii* (Engl.) Harms

Liana or tree 6-25m, occasionally epiphytic; crown rounded. Leaves with petiole 3-13cm long; leaflets 4-7, elliptic or obovate, base cuneate, obtuse or rounded, apex obtuse or retuse (rarely acute), margin entire or nearly so, 5-15 by 2.5-7.5cm, glabrous; petiolules 0.6-2.3cm long. Inflorescences 3-5 together, 10-25cm long, consisting of a central axis with small branches on which sessile flowers are arranged in umbellules; flowers green, to 2.5mm long. Fruits red, urceolate, up to 5mm across, about 5-ribbed, glabrous or puberulous.

K123456; 1550-2900m; I-VI, VIII, X, XII

Wet or dry upland forest, sometimes in *Hagenia* wood-

*Schefflera abyssinica**Schefflera volkensii*

land or bamboo zone.

Ndambili (KAM), Muthai (KIK), Dinet (KIP), Tingwa, Tinwot (MAR), Ottini (MAA), Ewait (NAN), Kwelet, Kwalet (SEB). Resin is mixed with honey and used as remedy for coughs and colds by Maasai and Kipsigis.

213. UMBELLIFERAE

Mostly herbs, occasionally softly woody shrubs or trees. Stems hollow. Leaves alternate, mostly exstipulate, mostly divided, with sheathing base. Flowers in umbels which are often compound; flowers 5-merous. Fruit dry.

1. Leaves simple, trifoliate or pinnate; leaf-margin entire or minutely toothed; fruit 3-angled

1. *Heteromorpha*

- * Leaves pinnate; leafmargin toothed, the teeth ending in long, fine tips; often flowering before leaves appear; fruit 2-winged

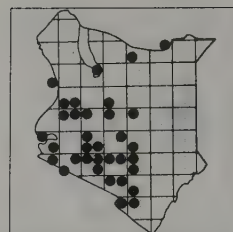
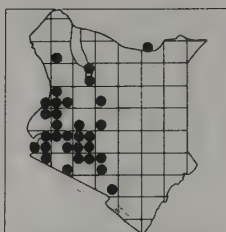
2. *Steganotaenia*

1. HETEROMORPHA

Herbs, shrubs or trees, softly woody. Leaves single, trifoliate or pinnate with 1-2(-3) pairs of leaflets.

Heteromorpha trifoliata (Wendl.) Eckl. & Zeyh.

Herb, shrub or tree 1-6(8)m; bark flaking, grey or dark



Heteromorpha trifoliata *Steganotaenia araliacea*

brown. Stem leaves aromatic, simple, trifoliate or pinnate with 1-2(3) pairs of leaflets; leaflets narrowly elliptic or -ovate, margin entire or crenulate, 3-11 by 1-3cm. Umbels with greenish-yellow flowers; petals about 1mm. Fruit brown, three-angled, 4.5-8 by 2-3mm.

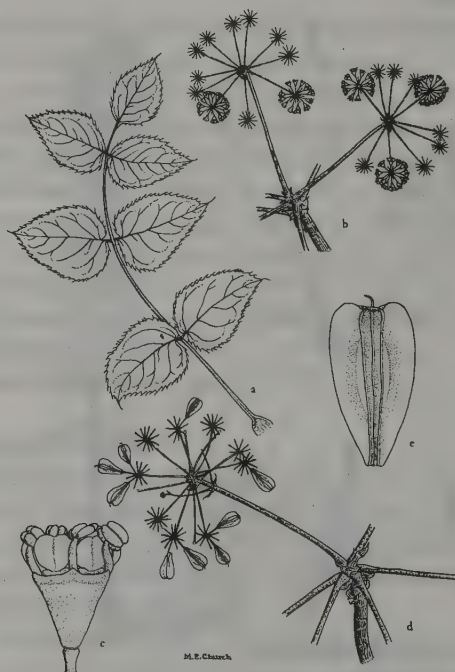
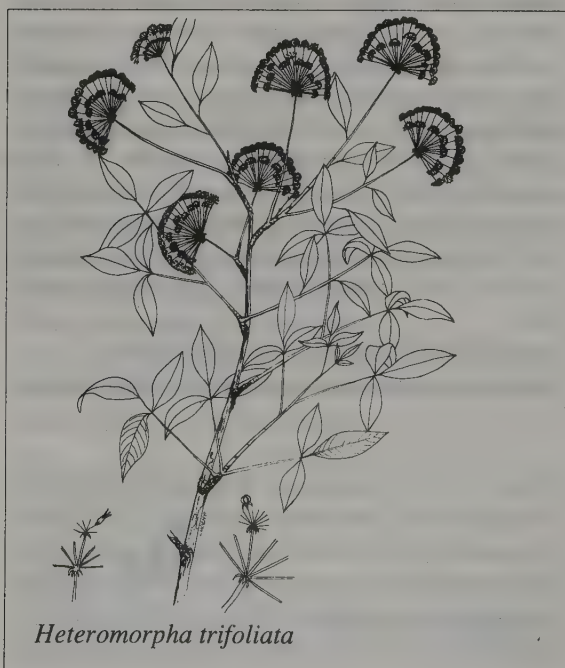
K123456; 1150-2650m; I-XI

Dry forest (edges), rocky grassland or bushed/wooded grassland, evergreen bushland or riverine.

Al-Hanko (BOR), Munu (KAM), Munyurury (KIK), Eman (KIP), Ol-Enkuyaini (MAA), Lukuyinei (SAM), Kimoiwet (SEB), Mbarachoka (TAI). Roots said to be poisonous.

2. STEGANOTAENIA

Trees, shrubs or herbs. Flowers bisexual, or male. Fruit strongly dorsally compressed, winged and ribbed.



Steganotaenia araliacea Hochst.

a: leaf ($\times \frac{1}{2}$). b: part of inflorescence—flowering ($\times \frac{1}{2}$). c: flower ($\times 7$). d: part of inflorescence—fruiting ($\times \frac{1}{2}$). e: fruit ($\times 3$).
a-c: from Gillett 13236, d & e: from Bally 8437.

Steganotaenia araliacea Hochst.

Tree (rarely shrub) 2-12m; wood soft; bark greybrown, peeling to show green underbark; branchlets 4-12mm thick. Leaves mostly clustered near branch-tips, imparipinnate with 3-4 pairs of leaflets; leaflets broadly ovate, apex acuminate, margin serrate with teeth ending in a fine, long tip, 2-14 by 1-8cm. Flowers mostly appearing before the leaves, white or yellow; petals 1-1.5mm. Fruit pale yellow, 8-15mm, compressed.

K1234567; 500-1950m; I, V, VII-IX, XI-XII

Dry stony hillsides, occasionally riverine.

Lugalekeh, Kibdi Shan (BOR), Muvuavui (KAM), Kumutomolo (LUH), Nyang-Liech (LUO), Oldaleleni (MAA), Chekwo (PKT), Mokyobelyo (SEB), Bigusa (SOM). Wood white, light. An infusion of this plant is strongly emetic; the bark is chewed by the Turkana against fever.

215. ERICACEAE

Leaves simple, exstipulate, often needle-like. Flowers regular, bisexual; corolla with tube and lobes. Anthers opening by pores. Fruit a capsule.

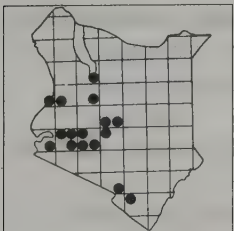
1. Leaves needle-like, circa 1 mm wide 2. *Erica*
* Leaves 1.5-4 cm wide 1. *Agauria*

1. AGAURIA

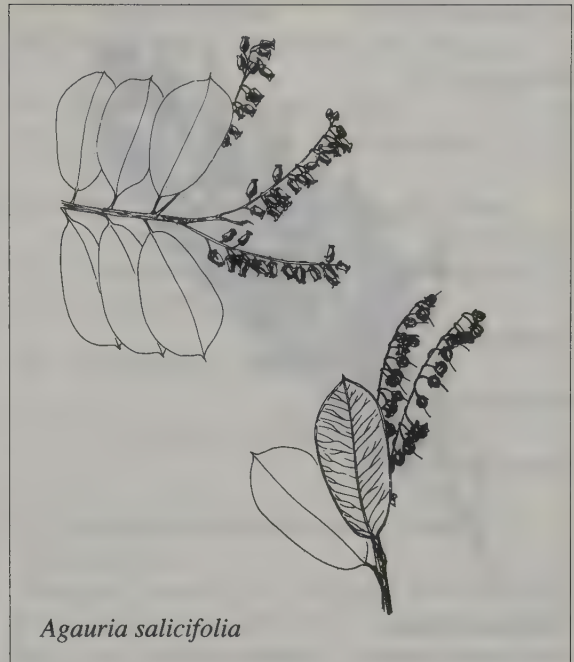
Leaves alternate or subopposite. Flowers with very small lobes and an almost urceolate tube. Fruit with a persistent calyx and style.

Agauria salicifolia (Lam.) Oliv.

Shrub or tree, 1-18m, evergreen; bark very rough and fissured, with vertical corky ridges. Leaves leathery, shiny, elliptical, base cuneate or rounded, apex rounded and mucronate or slightly acuminate, 3-7 by 1.5-4cm, glabrous (except sometimes the midrib); yellowish to pale whitish beneath. Flowers yellowish or pink, flushed crimson at base, in many-flowered axillary racemes to 12cm long; corolla 6-8mm long. Fruit reddish brown, globose, 4-5mm.



Agauria salicifolia



Agauria salicifolia

K1234567; (1250-) 2100-3300m; II, IV-V, VII, IX-XII

Forest edge or secondary forest, high-altitude bushland.

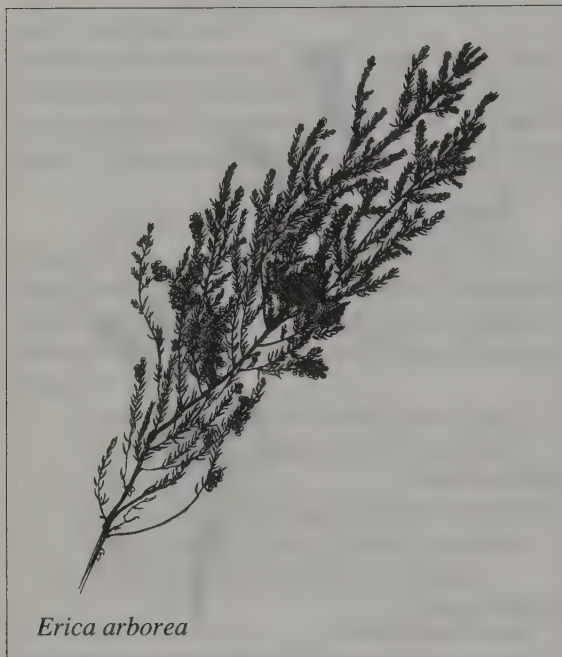
Muthengeta, Muthikita, Muthigetu (KIK), Tangotuet (KIP), Olbebe, Ol-Ogomati (MAA), Ortet (NDO), Artet, Chepkirikorok (SEB), Modi, Mododi (TAI). Leaves poisonous to cattle. A bark infusion is used by the Maasai to aid digestion.

2. ERICA (including PHILIPPIA)

Leaves needle-like, in whorls of 3, with reflexed margins beset with glandular teeth. Flowers bell-shaped, clustered on small lateral branches. Fruit a capsule, contained within the persistent calyx and corolla.

1. Flowers 4-merous 2
* Flowers 3-merous 2. *E. excelsa*
2. Flowers with a bract halfway down the pedicel 1. *E. arborea*
* Flower with a bract at calyx-level 3
3. Leaves appressed; corolla 2-3 mm long 4. *E. trimera*
* Leaves ascending, not appressed; corolla 1-1.5 mm long 3. *E. mannii*

Note: *Erica* (*Philippia*) *benguensis* does not occur in



Kenya; its inclusion in KTS was based on a wrong identification.

1. *Erica arborea* L.

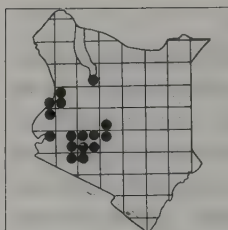
Shrub or tree, 0.5-7.5 m with ascending branches. Leaves ascending, 2-6.5 by circa 1 mm. Flowers white or pink, 1.5-3 mm long. Fruit red, to 3 mm long. K123456; (1000-) 2100-4500 m; I-IV, VI-XII (I, VIII-X)

In rocky high-altitude bushland; co-dominant in a zone above the Hagenia belt on high mountains. Giant Heath (STAND), Muthithinda (KIK), Kaibeyuwunyot, Kwaipayot (KIP), Olkibejus (MAA), Kwaloliong (MAR), Sisinuet (NAN).

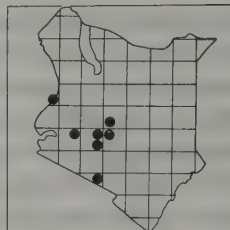
2. *Erica excelsa* (Alm & Fries) Beentje
(*Philippia excelsa* Alm & Fries)

Shrub or tree 0.6-9 m; bark grey or brown, longitudinally fissured. Leaves 2-5.5 by circa 1 mm. Flowers white or pink; corolla 1.5-2 mm long. Fruit to 2 mm long. K346; (1200-) 2500-3650 m; II-III, V-VIII, XI-XII* Boggy moorland or high-altitude grassland, heath zone.

Muthithinda (KIK), Kapsigaga (SEB).

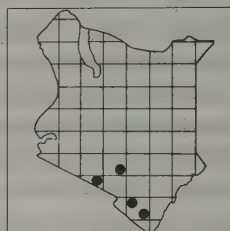


Erica arborea



Erica excelsa

Erica mannii



3. *Erica mannii* (Hook. f.) Beentje
ssp. *usambarensis* (Alm & Fries) Beentje
[*Philippia mannii* (Hook. f.) Alm & Fries ssp. *usambarensis* (Alm & Fries) Ross, *Philippia pallidiflora* Engl. ssp. *usambarensis*]

Shrub or tree 1-4 m. Leaves ascending, 2.5-5 by circa 1 mm. Flowers brown-red, in dense umbels; corolla 1-1.5 mm long. Fruit velvety, mauve, to 1.5 mm long. K467; (750-) 1350-2200 m; II-IV, VI-XI Bushland on rocky or eroded hillslopes. Sumbusu (TAI).

4. *Erica trimera* (Engl.) Beentje
(*Philippia trimera* Engl.)

Shrub 0.5-3 m. Leaves appressed, 2-6.5 by 0.5-1.4 mm. Flowers white, yellow or pink, in dense umbels; corolla 2-3 mm long. Fruit to 3 mm long. K45; 3000-4500 m; I-V, VII-X, XII* Heath zone.

Muthithinda (KIK), Kapsigaga (SEB).

Two subspecies have been described for Kenya:

- ssp. *keniensis* (S. Moore) Beentje [ssp. *keniensis* (S. Moore) Hedb.] from Mt. Kenya, with leaves 0.8-1.4 mm wide: **RARE**

- ssp. *elgonensis* (Mildbr.) Beentje [ssp. *elgonensis* (Mildbr.) Ross] from Mt. Elgon, with leaves 0.5-0.7 mm wide: **RARE**

221. EBENACEAE

Leaves alternate, without stipules. Inflorescence usually cymose; flowers unisexual, 3-8-merous; corolla with a tube; stamens 3-many. Fruit usually a berry.

- 1. Inflorescence cymose or fasciculate, or flowers solitary **1. *Diospyros***
- * Inflorescence a raceme **2. *Euclea***

1. DIOSPYROS

Dioecious. Calyx and corolla 3-8-lobed; disk present. Fruit often with a characteristic cup (enlarged calyx) at the base.

- 1. Leaves 1.5-4 by 0.6-2.2cm, either sandpapery or with ciliate margins and otherwise glabrous **2**
- * Leaves generally (much) larger **5**
- 2. Leaves glabrous, with ciliate margins; forest or woodland **9. *D. natalensis***
- * Leaves sandpapery or almost glabrous; dry bushland **3**
- 3. Branchlets at right angles, usually spine-tipped **14. *D. wajirensis***
- * Branchlets not spine-tipped **4**
- 4. Nerves and veins virtually invisible **10. *D. scabra***
- * Nerves and veins clearly visible **7. *D. kanurii***
- 5. Leaves glabrous beneath **6**
- * Leaves hairy beneath (sometimes only on lower midrib) **9**
- 6. Calyx glabrous **1. *D. abyssinica***
- * Calyx hairy **7**

NOTE: the flower calyx is unknown for **11. *D. shimbaensis*** (only known from Shimba Hills) which has the fruit completely enclosed in a soft red calyx.

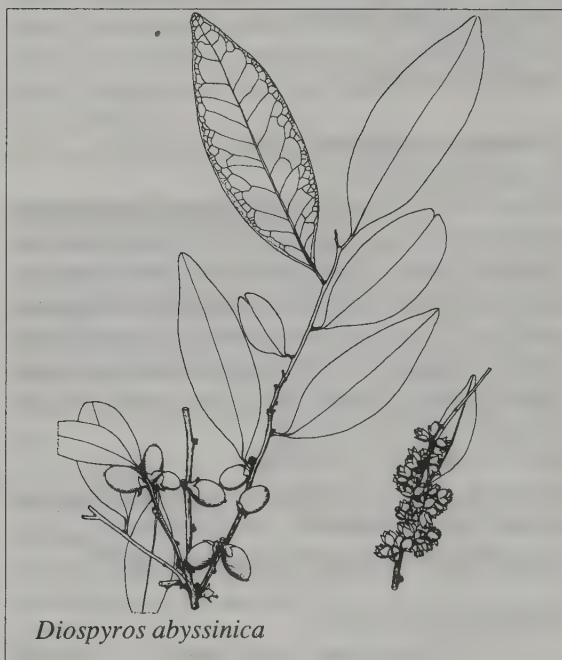
- 7. Calyx with distinct lobes **8. *D. mespiliformis***
- * Calyx with tiny teeth **8**
- 8. Leaves 3-10 by 1.5-4.5cm **3. *D. consolatae***
- * Leaves 11-28 by 5-11cm (Shimba Hills only) **2. *D. amaniensis***
- 9. Mature fruit hairy; fruiting calyx longer than fruit **10**
- * Mature fruit glabrous; fruiting calyx shorter than fruit **11**
- 10. Forest species; leaf apex acuminate **5. *D. greenwayi***
- * Woodland/wooded grassland species; leaf apex

rounded or acute **13. *D. usambarensis***

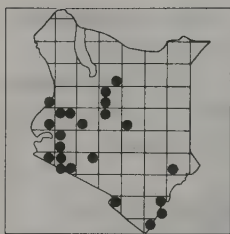
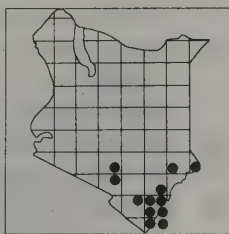
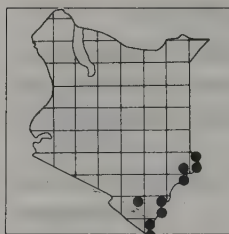
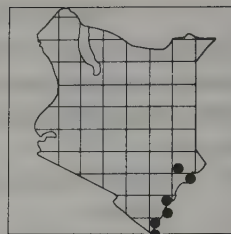
- 11. Fruits angular, about 3 by 3cm; leaf apex acuminate **6. *D. kabuyeana***
- * Fruits smooth, usually smaller **12**
- 12. Woodland, bushland or thicket species **13**
- * (Riverine) forest species **14**
- 13. Leaf apex rounded; fruiting calyx 8-9mm, slightly lobed **4. *D. cornii***
- * Leaf apex shortly acuminate; fruiting calyx 5-6mm, lobed for more than 50% **12. *D. squarrosa***
- 14. Fruiting calyx reflexed (Taita Hills) **15. *D. zombensis***
- * Fruiting calyx clasping the fruit **8. *D. mespiliformis***

1. *Diospyros abyssinica* (Hiern) F. White
ssp. *abyssinica*

Tree (occ. flowering as a shrub) 9-30m; bark dark grey, in old trees scaling off in narrow fibrous strips; bole long, straight, slender. Leaves elliptic, base cuneate or rounded, apex obtuse or bluntly acuminate, 3-12 by 1.2-4cm, glabrous. Flowers cream (drying black), in axillary fascicles (female) or short cymes (male); corolla 5-6mm long. Fruit orange, ellipsoid, 9-14mm long, with persistent style.



Diospyros abyssinica

*Diospyros abyssinica**Diospyros consolatae**Diospyros cornii**Diospyros kabuyeana*

K134567; 1-300m (coast) and 750-2200m (inland); II, VII *

Drier forest (rarely in wet forest) or riverine forest.

Lusui (STAND), Mdaa-Mwitu (SWA), Roho (BOR), Lookko (GAB), Mlala (GIR), Motya-mowgi (ILW), Mukololo (KAM), Muiruthi (KIK), Cheptuiyet (KIP), Lusui (LUH), Ochol (LUO), Ol-Charoiyan (MAA), Mutimuiro, Mutharagwe (MER), Cheptuiyet, Kenduiwet (NAN), Ilchanai orok (SAM), Cheptua (SEB), Msesevu (TAV). An excellent, tough timber, but not durable in the ground; used in building and furniture making, as well as for axe handles.

2. *Diospyros amaniensis* Gürke

Shrub 4-5m, evergreen. Leaves elliptic or slightly obovate, base cuneate, apex obtuse, 11-28 by 5-11cm, glabrous or nearly so. Flowers whitish, in dense clusters axillary to leaves or on older wood; corolla 6-7mm long. Fruit not seen.

K7; 400-450m; -*

Shimba Hills forest.

3. *Diospyros consolatae* Chiov.

(*D. bussei* sensu KTS)

Shrub or tree 1.5-10m; small buttresses often present; bark in older trees greybrown or blackish, scaly or furrowed. Leaves elliptic or obovate, base cuneate to almost rounded (often a bit unequal), apex subacute or rounded, 3-10 by 1.5-4.5cm, glabrous. Flowers cream, axillary in groups of 1-3; corolla about 8mm long. Fruit depressed globose, 14-17mm across, with an enlarged calyx to 7mm long.

K47; 1-1500m; I, IX, XI-XII *

Dry forest, thicket, woodland, wooded grassland and moister types of bushland. Locally common.

Mwaa, Malala sungura (SWA), Mubati (GIR).

4. *Diospyros cornii* Chiov.

Tree 5-15m, evergreen; bark greyblack, fissured.

Leaves elliptic, base cuneate to rounded, apex rounded, 4-9 by 2.5-4cm, rusty-puberulous beneath. Flowers cream, axillary, solitary or in pairs; corolla 6-8mm long. Fruit yellow, ovoid, 18-22 by 17-19mm, with an enlarged calyx.

K17; 1-500m; I *

Wooded or bushy grassland. May be common, e.g. in Boni.

Mku (SWA), Mkulu (SWA, DIG, GIR), Mukongo (KAM), Olate (PKM), Kolati (SOM).

5. *Diospyros greenwayi* F. White

RARE

Shrub or tree 3-10m; bark grey, smooth or rough. Leaves elliptic, base cuneate or rounded, apex acuminate, 7-14 by 3-5.5cm, glabrous except for the lower part of the midrib beneath which is puberulous. Flowers white, axillary or on older wood, solitary or in pairs; corolla about 10mm long. Fruit globose or ellipsoid, very hairy, 18-22 by 14-16mm, overtopped by the enlarged clasping calyx.

K7; 1-400m; V, IX *

Dry or moist forest; known from Shimba Hills, Buda and Witu.

M(u)lala (DIG). Used for building poles.

6. *Diospyros kabuyeana* F. White

VULNERABLE

Tree (rarely fruiting as a shrub) 5-12m; bark greyblack. Leaves slightly obovate, base cuneate or rounded, apex acuminate, 7-14 by 2.5-5.5cm, hairy esp. on veins beneath. Flowers cream, solitary and axillary; corolla about 10mm long. Fruit ellipsoid, angular, about 3cm long and wide.

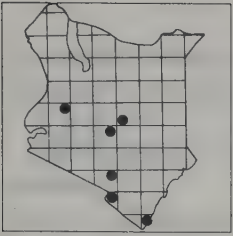
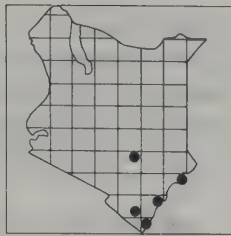
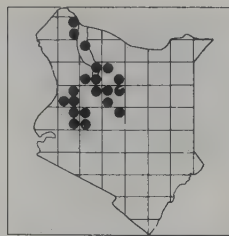
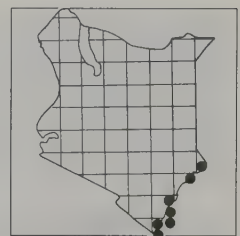
K7; 1-500m; XI *

Moist or dry forest.

7. *Diospyros kanurii* F. White

VULNERABLE

Shrub ca 1.5m. Leaves elliptic or obovate, base rounded, apex rounded to subacute, up to 3.5 by 1.8cm, glabrous or nearly so. Flowers (only females known)

*Diospyros mespiliformis**Diospyros natalensis**Diospyros scabra**Diospyros squarrosa*

solitary, hanging; corolla 7mm long. Fruit unknown. K1; 160m; ?*

One site in dry bushland on the Dadaab-Wajir road.

8. *Diospyros mespiliformis* A.DC.

Tree 8-24m (to 45m in Taveta?), evergreen; bole in larger specimens fluted; bark rough, greyblack or brown. Leaves rather narrowly elliptic, base cuneate or rounded, apex obtuse or subacuminate, 7-19 by 2-7cm, glabrous or minutely puberulous beneath. Flowers white, 1-3 together, axillary to basal leaves of present year shoots (which may be caducous); corolla 6(male) or 10-12 (female)mm long. Fruit yellow, round, 17-25mm, with an enlarged clasping calyx.

K1347; 1-1200m; I, III *

Riverine or groundwater forest; on the coast also in forest away from water.

African Ebony (TRADE), Mukowlo (ILW), Mukoro (MER), Kolati-gurati (ORM), Kolati (SOM), Muyongolo (TAV), Egum (TUR). Wood hard, strong, almost termite-resistant, used to make dugout canoes and to make small implements.

Note. The single record from K1 (Hughes 111) is from "Twin islands, near river" (not mapped).

9. *Diospyros natalensis* (Harv.) Brenan

Shrub or tree 3.5-20m. Leaves elliptic, base cuneate or rounded, apex obtuse, 1.5-4 by 0.8-2cm, glabrous except for ciliate margins. Flowers white, 1-4 together, axillary, sometimes on last years wood; corolla 3.5-5mm long. Fruit ellipsoid, 8-10 by 4-5mm, with a cup-like calyx in its lower third.

K47; 1-1250m; XII *

Forest or Brachystegia woodland.

Mngombo Mukulu (GIR).

10. *Diospyros scabra* (Chiov.) Cuf.

(*D. sp. nov.* 1 of KTS)

Shrub or tree, 1.5-11m; bark grey, corrugated-platy.

Leaves elliptic, base cuneate or obtuse or rounded, 1.5-3.2 by 0.8-1.4cm, scabridulous to almost glabrous. Flowers (greenish) cream, 1-3 together, axillary; corolla 3-4mm long. Fruit red, ellipsoid, 12-15 by 10-14mm, with a small calyx.

K123; 400-1050m; I, VI, VIII, XII *

Common along luggas and on rocky hillsides.

Iocho (BOR), Kisaia (KAM), Tuwot (PKT), Yaga aquarra (REN), Lgotoi (SAM), Tuwot (TUG), Elim (TUR). A bark infusion is employed against womens' stomach troubles by the Samburu. A ceremonial tree with the Pokot.

11. *Diospyros shimbaensis* F.White

VULNERABLE

Tree to 10m. Leaves elliptic or ovate, base cuneate or rounded, apex shortly and bluntly acuminate, up to 12 by 6.5cm, glabrous. Flowers cream and pink, ca 6mm long. Fruit solitary on older wood, yellow, broadly ellipsoid, about 18 by 14mm; calyx to 35 mm, completely enclosing the fruit, soft and red.

K7; 1-400m; -*

Shimba Hills, Mwele, Gongoni, Buda; forest.

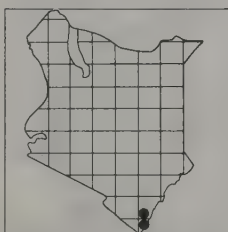
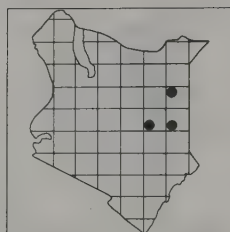
12. *Diospyros squarrosa* Klotzsch

Shrub or tree 3-12m; bark shallowly fissured. Leaves slightly obovate, base cuneate or rounded, apex short-acuminate, 5-14 by 3-7cm, densely (when young) to sparsely pubescent. Flowers greenish, 1-3 together in cymes near base of shoots; corolla 7-9mm long. Fruit yellow to red, round, 20-25mm; calyx about 6mm long.

K7; 1-300m; V *

Woodland/bushland or thicket; occasionally in forest margins.

Mpweke (SWA), Mupweki (GIR). Poles are used as yokes for carrying water, and the wood is used for tool handles.

*Diospyros usambarensis**Diospyros wajirensis***13. *Diospyros usambarensis* F. White**ssp. *rufescens* A.N. Caveney[*Royena macrocalyx* Gürke]

Shrub or tree 3.5-6m; bark greyblack, deeply fissured. Leaves obovate, base subcordate or rounded, apex rounded or shortly acute, 3-9 by 2-5.5cm, densely pubescent beneath. Flowers greenish, in few-flowered short cymes near the base of shoots; corolla 4-6mm long. Fruit yellow, round, 15-25mm, hairy; calyx larger than fruit.

K7; 1-200m; I *

Woodland or wooded grassland.

Mdaa (SWA), Mukonga (KAM).

14. *Diospyros wajirensis* F. White

(D. sp. nov. 2 of KTS)

RARE

Shrub 1.5-5m; shoots often ending in a spine. Leaves on shortshoots, rarely spaced, obovate, base cuneate or obtuse, apex rounded, 1.5-4.2 by 0.6-2.2cm, glabrous or minutely scabridulous. Flowers pale yellow, solitary and axillary; corolla about 5mm long. Fruit yellowish, round and apiculate, 12-13mm; calyx 4-5mm long.

K1; 150-300m; IV-V, XI *

Dry bushland; very common near Wajir.

Goma gomo (SOM). Fruit edible; wood used for walking sticks.

15. *Diospyros zombensis* (B.L. Burtt) F. White[*Royena amnicola* B.L. Burtt]

Shrub or tree, 3-12m. Leaves obovate, base rounded or subcordate, apex shortly acuminate, 6-13 by 3-8cm, somewhat hairy beneath (esp. veins). Flowers in few-flowered axillary cymes; corolla about 6mm long. Fruit round, 20-30mm; calyx 12-18mm long, reflexed. K7; in Kenya only known from Msau R. Valley in Taita Hills.

Riverine forest.

2. EUCLEA

Leaves alternate, subopposite, or subverticillate. Inflorescence a raceme; flowers dioecious. Calyx and corolla 4-5-lobed; disk present.

1. Branchlets and inflorescence (slightly) hairy

2. *E. natalensis*

- * Branchlets and inflorescence glabrous or scaly

2

2. Corolla campanulate, lobed to beyond the middle

1. *E. divinorum*

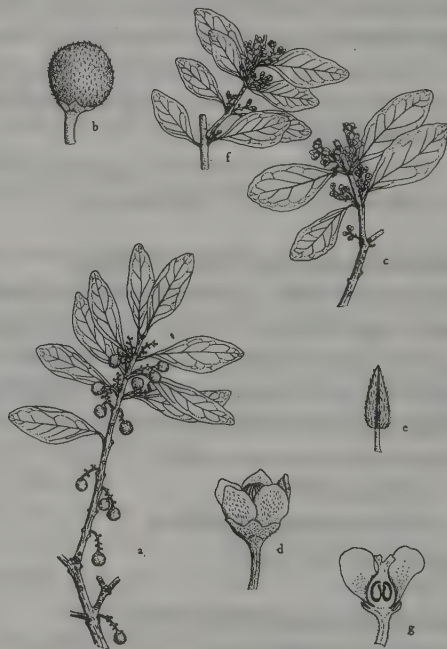
- * Corolla urceolate (narrower at top) lobed in upper half only

3. *E. racemosa***1. *Euclea divinorum* Hiern**

Shrub or tree 1-9(-15)m, evergreen; bark dark grey, fissured. Leaves (sub) opposite, (narrowly) elliptic, base long-cuneate, apex obtuse, 3-10 by 1-4cm, margins often undulate, glabrous or scaly beneath. Flowers whitish, in short (to 20mm) racemes; corolla 2.5-3.5mm long. Fruit green, round, 6-7mm.

K1234567; 1-2400 (2700?)m; I-VIII, XII (VI-VII)

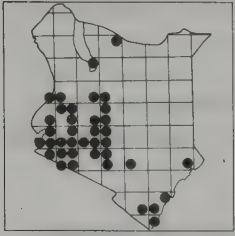
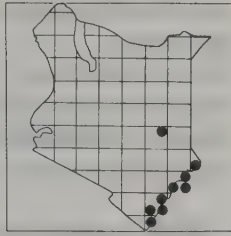
Dry forest (margins), riverine in bushland or forest, in bushed grassland or pasture, in (semi-) evergreen bushland and in wooded grassland on anthills. Often a weed of pastures, due to its phenomenal power of coppicing and root suckering.



M. J. Church

Euclea divinorum Hiern.

a: fruiting branchlet from ♀ plant (× 4). b: fruit (× 3). c: portion of flowering branchlet from ♂ plant (× 4). d: ♂ flower (× 6). e: stamen (× 10). f: portion of flowering branchlet from ♀ plant (× 4). g: L.S. ♀ flower (× 6).
a & b: from Baily 732; c-e: from Napier 6168; f & g: from Verdcourt & Steele 910.

*Euclea divinorum**Euclea natalensis*

Mukinyei (KAM, KIK), Uswa, Uswet (KIP, TUG, SEB), Kumuchanjasi (LUH), Ochol (LUO), Ol-Kinyei (MAA), Jeptuiya (MAR), Lchingei (SAM), Shiendet (SEB), Kanarape (TUG). A decoction of the roots is used as a purgative by the Luo; Kipsigis use a bark infusion as an appetizer.

2. *Euclea natalensis* A.DC. ssp. *obovata* F.White (*E. fructuosa* Hiern)

Shrub or tree 2-9(-15)m, evergreen. Leaves alternate, obovate, base cuneate, apex rounded, 5-13 by 2-5cm, glabrous to tomentellous. Flowers white or cream, in racemes to 3cm long; corolla 4-5mm long. Fruit green, round, to 9mm.

K7; 1-350m; VII-IX *

Forest, thickets, riverine.

Mdaa, Mdaa-Mwitu (SWA), Ma-oth (BON), Mlala (DIG), Mkipa (GIR), Muluqisa (ILW), Lukisa (ORM, PKM). Bark and roots yield a black dye.

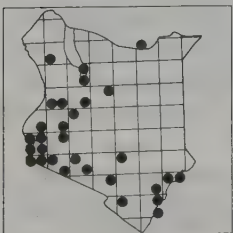
3. *Euclea racemosa* Murr.

ssp. *schimperi* (A.DC.) F.White (*E. schimperi* A.DC.)

Shrub or tree 1-10m. Leaves alternate, opposite or verticillate, elliptic or obovate, base attenuate, apex rounded, 3-11 by 1-4cm, glabrous. Flowers cream, in racemes to 5cm long; corolla 3-5mm long. Fruit green, round, 6-8mm.

K1234567; 1-2250m; II, IV, VII-XI

Semi-evergreen bushlands in rocky sites, thickets in wooded grassland, secondary bushland near forest.

*Euclea racemosa*

Miesia (BOR), Ochuol (LUO), Mukinyei (KAM), Uswet (KIP), Osoiyo, Olkinyei (MAA), Gambunibuni (NDO), Usuet (NAN, KIP, TUG), Cheptuya (PKT), Ilikinjai, Ngingei (SAM), Mbukhu (TAI), Konorowe (TUG), Emuth (TUR). Roots produce black dye, and are purgative.

Note: White in FZ gives the key-characters glabrous/scaly to identify sterile *Euclea* ssp. In Kenya there seem to be intermediates between *E. divinorum* and *E. schimperi*, with the leaves (almost) glabrous and the inflorescence-axils scaly.

222. SAPOTACEAE

Trees or shrubs. Milky juice generally present. Leaves alternate and simple. Stipules present but often caducous. Flowers solitary or clustered, axillary; generally small. Calyx with 4-8 sepals (sometimes partly united) in one or two whorls. Corolla campanulate or shortly tubular, with 4-8 lobes (in 1-2 series). Ovary superior. Fruit a berry.

- | | | |
|----|--|---------------------------|
| 1. | Calyx of 2 whorls of 3-4 sepals each | 2 |
| * | Calyx of 5 sepals, in one whorl | 4 |
| 2. | Sepals 6 | 7. <i>Manilkara</i> |
| * | Sepals 8 | 3 |
| 3. | Leaves densely clustered on branch tips; shrub/tree 3-5m | 11. <i>Vitellariopsis</i> |
| * | Leaves not clustered <u>or</u> tree 18-20m | 8. <i>Mimusops</i> |
| 4. | Stipules present, persistent | 5 |
| * | Stipules absent | 6 |
| 5. | Veins many, closely parallel | |

3. *Bequaertiodendron*

- | | | |
|----|---|----------------------|
| * | Venation spaced | 9. <i>Pachystela</i> |
| 6. | Leaves hairy on lower surface (use lens) | 7 |
| * | Leaves glabrous (except sometimes midrib) | 9 |
| 7. | Flower/fruit pedicel 5-10mm long | 2. <i>Aningeria</i> |
| * | Flower/fruit pedicel less than 4mm long | 8 |
| 8. | Veins many, closely parallel | |

3. *Bequaertiodendron*

- | | | |
|-----|---|---------------------------|
| * | Venation spaced | 4. <i>Chrysophyllum</i> |
| 9. | Leaves pellucid-punctate (hold against light) | 10 |
| * | Leaves not pellucid-punctate | 11 |
| 10. | Lateral nerves looped to form thickened leaf-margin (coast) | 6. <i>Malacantha</i> |
| * | Lateral nerves looping near leaf-margin (Kakamega) | 2. <i>Aningeria</i> |
| 11. | Pedicels of flower/fruit to 28mm long | |
| | | 11. <i>Vitellariopsis</i> |

- * Pedicels up to 12mm long 12
- 12. Coastal or riverine bushland species, often close to sea; fruit purple or black 10. *Sideroxylon*
- * Forest species; fruit yellow, orange or red 13
- 13. Venation closely parallel 4. *Chrysophyllum*
- * Venation spaced 14
- 14. Petioles up to 12mm long; calyx with a short tube 1. *Afrosersalisia*
- * Petioles up to 40mm long; calyx lobes free to base 5. *Inhambanella*

1. AFROSERSALISIA

Stipules absent. Flowers axillary or cauliflorous on small projections, clustered. Sepals 5. Petals 5, with a short tube. Stamens 5, plus 5 staminodes. Fruit 1-seeded, subglobose.

- 1. Leaves with raised venation below 1. *A. cerasifera*
- * Leaves with impressed secondary venation below 2. *A. kassneri*

1. *Afrosersalisia cerasifera* (Welw.) Aubrév.

Tree 10-40m; bole fluted. Leaves obovate, base cuneate, apex obtuse, 6-17 by 5-6cm, glabrous. Flowers yellowish or greenish-cream, in axillary clusters;

corolla to 6mm long. Fruit red, ovoid or globose, to 25 by 20mm.

K35; 1350-1650m; - *

Rain forest and riverine forest: Kakamega area.

Mbeshe, Tsikhulumuru (LUH). Fruit edible; latex used to treat wounds.

2. *Afrosersalisia kaessneri* (Engl.) J.H. Hemsley

VULNERABLE

Shrub or tree 1.5-12m. Leaves elliptic or slightly obovate, base cuneate, apex obtusely acuminate, 5-13 by 2-4.5cm, glabrous. Flowers cream, in small clusters; corolla to 2.5mm long. Fruit orange, ellipsoid, 13-18 by 6-8mm.

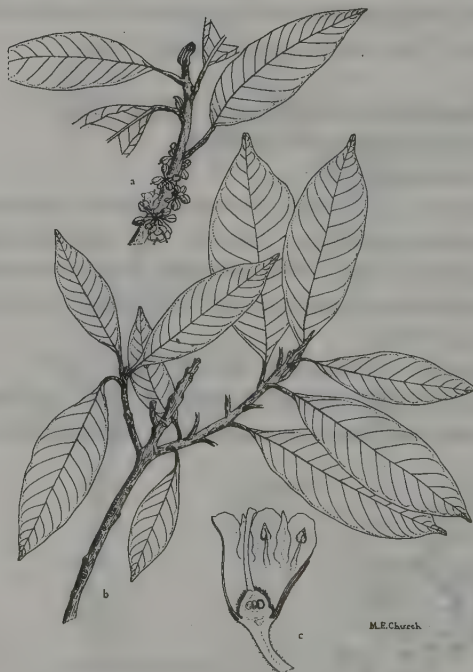
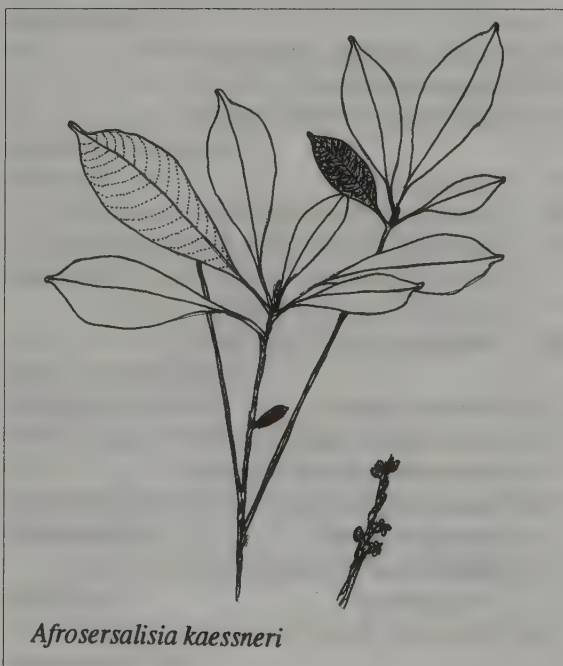
K7; 300-500m; III *

A rare (though locally common) endemic of Shimba Hills forests (Makadara); the type was collected at Makoni in 1902; this was probably at lower altitude than the range given here; very recently also found on Mangea, where it was being cut.

Mungweni (DIG).

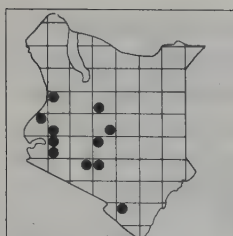
2. ANINGERIA

Stipules absent. Leaves pellucid-punctate. Flowers fascicled in axils (sometimes of fallen leaves). Sepals 5. Corolla with tube and 5 lobes. Stamens 5, plus 5



Aningeria adolfi-friederici (Engl.) Robyns & Gilbert

a: flowering branchlet ($\times \frac{1}{2}$), b: branchlet ($\times \frac{1}{2}$), c: L.S. flower ($\times 4$).
a & c: from Dyson 338; b: from Drummond & Hemsley 2592A.



*Aningeria
adolphi-friedericii*

staminodes. Fruit usually 1-seeded.

1. Mature leaves leathery, apparently without
pellucid dots **1. *A. adolfi-friedericii***

- * Mature leaves chartaceous, with easily visible
pellucid dots (lens!) **2. *A. altissima***

1. *Aningeria adolfi-friedericii* (Engl.) Robyns & Gilb.
Tree, 12-45m, with wide buttresses in older trees; bark
smooth, grey-white; long clean bole. Leaves elliptic,
base cuneate, apex acute or obtuse, margin often
inrolled, 4-22 by 2-8cm (larger in saplings), more or
less rusty-tomentose beneath. Flowers cream, fas-
cicled in axils (often of fallen leaves); corolla to
8.5mm long. Fruit greenish, ellipsoid with short beak,
18-30 by 7-10mm.

Moist forest.

Muna (TRADE), Muna (KIK), Cheptatet (KIP), Seite
(MAR), Mutunguru (MER), Lulyo, Luliondet (SEB),
Ngecheberet, Nejebbe (TUG), Kipworbet (TUG,
NDO). Timber with medium heavy wood. The seeds
contain an edible oil.

1. Mature leaves densely rusty-pubescent beneath
2

- * Mature leaves almost glabrous beneath
ssp. ***usambarensis***

2. Crown leaves 4-12cm long, with 10-14 veins
on each side; petiole 1-1.5(1.8)cm; margins
inrolled ssp. ***keniensis***

- * Crown leaves 8-22cm long, with 14-25 veins;
petiole (1) 1.5-2.3cm ssp. ***adolphi-friedericii***

- ssp. ***adolphi-friedericii***

K235; 1950-2250m; VI *

- ssp. ***keniensis*** (RE Fr.) J.H. Hemsley

K134; 1650-2400m; III, IV, VI, VIII *

- ssp. ***usambarensis*** J.H. Hemsl.

K7; 1450-1800m; - *

2. *Aningeria altissima* (A. Chév.) Aubrév. & Pellegr.

Tree to 50m, slightly buttressed at base; bark pale grey;

long clean bole. Leaves elliptic or slightly obovate,
base rounded or obtuse, apex obtuse or bluntly acumi-
nate, 5-13 by 3-7cm, glabrous except for midrib be-
low. Flowers cream, axillary in clusters; corolla to
5.5mm long. Fruit red, obovoid or subglobose, to 2cm
across.

K5, Kakamega Forest; 1550-1650m; VI *

Osan (TRADE), Mukangu (LUH).

3. BEQUAERTIODENDRON

Flowers axillary (sometimes of fallen leaves), con-
gested or solitary; sepals 5, petals 5 with a tube.
Stamens 5. Fruit 1-seeded.

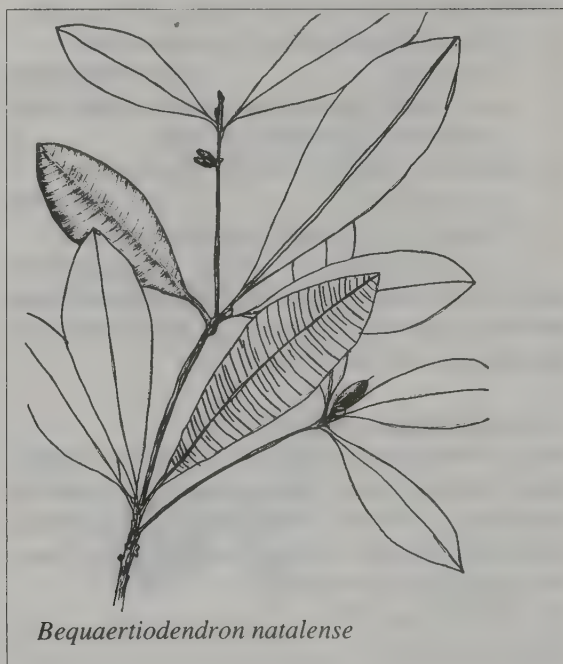
1. Stipules present, linear; flowers several to
many per inflorescence **2. *B. oblanceolatum***

- * Stipules absent; flowers 1-3 per inflorescence

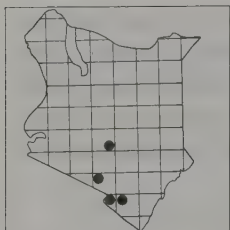
1. *B. natalense*

1. *Bequaertiodendron natalense* (Sond.) Heine &
J.H. Hemsl.

Tree 4-12m (25 outside Kenya). Leaves silvery-grey
below, elliptic or slightly obovate, base cuneate, apex
obtuse or acuminate, 7-12 by 2-4cm, finely appressed-
pubescent below. Flowers cream, axillary and subses-
sile; corolla to 6mm long. Fruit red, ellipsoid, acute, to
35 by 16mm.



Bequaertiodendron natalense



*Bequaertiodendron
natalense*

K467; 1450-1850m; I, X *

Moist or dry evergreen forest.

Mwamba (KAM). The fruit is edible.

**2. *Bequaertiodendron oblanceolatum* (S. Moore)
Heine & J.H. Hemsl.**

Shrub or tree 6-10(17?)m. Leaves elliptic to slightly obovate, base cuneate, apex obtuse or acute, 7-21 by 2-6cm, finely appressed-pubescent below. Flowers cream, axillary and sessile; corolla to 4.5mm long. Fruit red, ellipsoid, to 20 by 15mm.

K5; 1550-1650m; I, XII *

Kakamega forest.

Musamia (LUH). The fruit is edible.

4. CHRYSOPHYLLUM

Stipules absent. Flowers clustered in (fallen) leaf axils. Sepals 5; corolla with tube and 5 petals. Stamens 5, staminodes usually absent. Fruit 1-several seeded.

1. Leaves with many closely parallel nerves, glabrous **3. *C. viridifolium***

* Leaves with secondary nerves more than 5mm apart, finely puberulous beneath **2**

2. Kakamega species, 2nd nerves more than (1) 1.5cm apart **1. *C. albidum***

* Central/Coast species; 2nd nerves less than 1(1.5)cm apart **2. *C. gorungosanum***

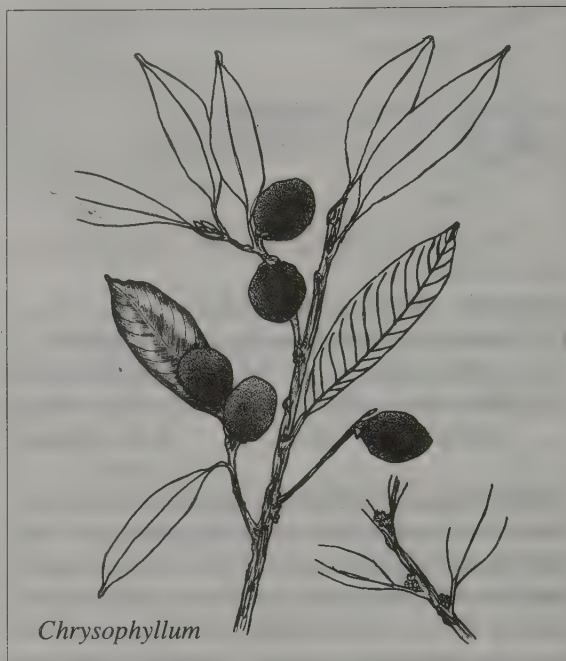
Note: in Kakamega forest *Chrysophyllum delevoiyi* De Wild. might occur (like *C. gorungosanum*, but leaves larger and fruit to 6cm).

1. *Chrysophyllum albidum* G. Don

Tree 24-40m; base buttressed; bole long, straight, fluted. Leaves elliptic, base cuneate, apex obtuse or acuminate, 12-25 by 3-9cm, finely golden-brown puberulous beneath. Flowers cream, to 5mm long. Fruit globose, to 5cm across.

K5; 1550-1650m; VI *

Kakamega forest.



Chrysophyllum

White Star Apple (TRADE), Mululu (LUH). The fruit pulp is edible; the wood is used for tool handles and for construction work.

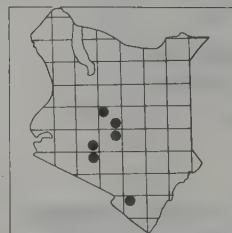
2. *Chrysophyllum gorungosanum* Engl.

Tree 24-40m with small buttresses and long, fluted bole; bark pale grey. Leaves (narrowly) elliptic, base cuneate, apex acute or shortly acuminate, 7-20 by 2.5-6cm (larger in saplings), silvery-brown or golden-brown appressed-puberulous beneath. Flowers cream, to 4mm long. Fruit reddish-brown, ellipsoid, to 4 by 3cm.

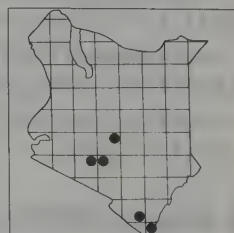
K47; 1500-2250m; II *

Moist forest (*Ocotea-Podocarpus*), may be common. This species is more common in the moist forests of central Kenya than the map indicates.

Muthenia, Mwagao (KIK).



Chrysophyllum gorungosanum



C. viridifolium

3. *Chrysophyllum viridifolium* Wood & Franks

Tree 12-21m, with fluted bole and grey bark. Leaves elliptic, base cuneate and often unequal, apex bluntly acuminate, 4-11 by 2.5-5cm, glabrous (except mid-rib). Flowers yellow-green, to 2.5mm long. Fruit yellow, subglobose and 5-angled, to 3.5cm across, sticky.

K47; 350-1650m; IV-V, VII, X *

Moist or dry evergreen forest and riverine forest.

Mtobwe (DIG), Murundu, Munugungu (KIK).

5. INHAMBANELLA

Stipules caducous. Flowers axillary, clustered. Sepals 5-6, petals 5, stamens 5. Stamines present. Fruit 1-seeded.

Inhambanella henriquesii (Engl. & Warb.) Dubard

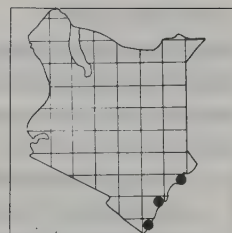
Tree 12-15(25?)m, with small buttresses; bark rough, grey. Young flush red. Leaves obovate, base cuneate, apex obtuse or emarginate, margin undulate, 7-25 by 3.5-12cm, glabrous. Flowers yellow, to 8mm long. Fruit red, globose, to 8cm across.

K7; 1-500m; II, XII *

Moist or rather dry evergreen forest; common at Witu. Mkungu-Wazimu (SWA), Mkuna-Mbeka (SWA, DIG). The fruit is edible.



Inhambanella henriquesii

Inhambanella henriquesii**6. MALACANTHA**

Stipules absent. Flowers axillary, clustered. Sepals 5, petals 5, stamens 5; staminodes absent. Fruit 1-seeded.

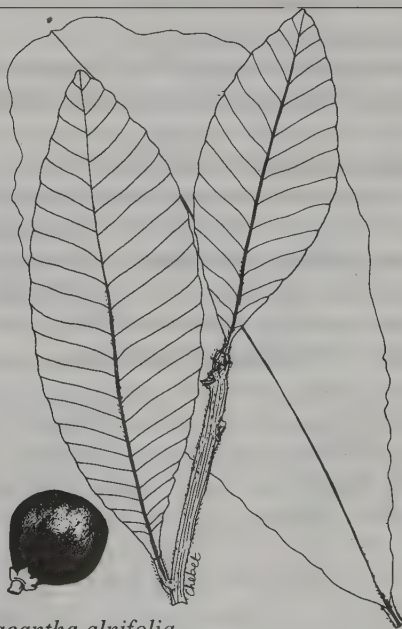
Malacantha alnifolia (Baker) Pierre

Tree 20-25m, deciduous; with fluted bole and slightly buttressed base; bark brown, flaky. Leaves obovate or elliptic, base cuneate (obtuse), apex rounded or apiculate, 16-30 by 7-14cm, scabridulous above and more or less brown-pubescent beneath with T-shaped hairs. Flowers rusty, to 5mm long. Fruit red, globose, to 2.5cm across.

K7; 50-400m; - *

Moist forest. A very attractive tree, in recent times only known from Shimba Hills, Mwele and Buda, where it is now being cut for timber.

Fruit very tasty.



Malacantha alnifolia

7. MANILKARA

Stipules absent or caducous. Flowers axillary, clustered, long-pedicellate. Sepals 6 in 2 whorls; petals 5 with divided lobes; stamens 6, plus 6 staminodes. Fruit 1-several-seeded.

1. Leaves clustered on spur shoots 3. *M. mochisia*

* Leaves not clustered 2

2. Leaves small, up to 5(8)cm, glabrous; calyx and upper branchlets reddish-hairy

5. *M. sulcata*

* Leaves usually larger or densely hairy beneath (hairs small) 3

3. Nerves impressed on upper side of leaf, clear

4. *M. sansibarensis*

* Nerves slightly raised, indistinct 4

4. Leaves grey-green beneath, 8-17cm long

1. *M. butugi*

* Leaves silvery-grey beneath, 4-10cm long

2. *M. discolor*

1. *Manilkara butugi* Chiov.

Tree 18-36m with long, slightly fluted bole; bark slightly ridged, sometimes scaly near base. Leaves elliptic, base cuneate, apex shortly acuminate, 8-17 by 3-6cm, sparsely appressed-hairy beneath. Flowers pale yellow, congested in leaf axils; corolla to 7.5mm long. Fruit subglobose, about 3cm across.

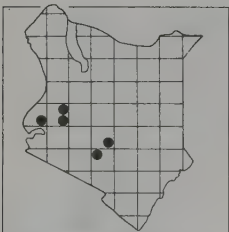
K345; 1400-2100m; III, VI, IX *

Moist forest or riverine forest.

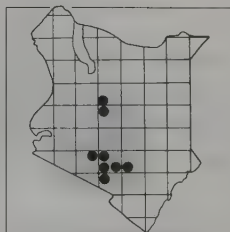
Ludulio (TRADE), Nkunyo (STAND), Ludolio (LUH). Fruit edible. Wood hard, dense, used for spearshafts.

2. *Manilkara discolor* (Sond.) J.H. Hemsl.

Tree 6-25m; bark dark brown, deeply grooved. Leaves elliptic or obovate, base cuneate, apex rounded or emarginate (slightly acuminate), 4-10 by 2-4.5cm, densely silvery grey appressed-hairy beneath. Flowers yellow, in axillary clusters; corolla to 6.5mm long. Fruit yellow, ellipsoid, to 13mm long.



Manilkara butugi



Manilkara discolor

K146; 1200-2000m; II, V-VI, IX, XI-XII *

Dry evergreen forest (remnants) or riparian forest.

Mugambara (KIK), Munguladugi (KAM). Fruit edible.

3. *Manilkara mochisia* (Bak.) Dubard

Tree 3-15m; bark brown-grey, deeply grooved. Leaves clustered in tight rosettes on shortshoots, obovate, base cuneate, apex rounded, often emarginate, 1.5-6.5 by 0.8-3cm, glabrous or puberulous beneath. Flowers yellow or cream, densely clustered in axils; corolla 3-5mm long. Fruit yellow, subglobose, to 1.8cm long. K13467; 1-1200 (1700)m; I-III, VI-VII, IX-XII *

Deciduous bushland, bushed or wooded grassland; also on black cotton soils.

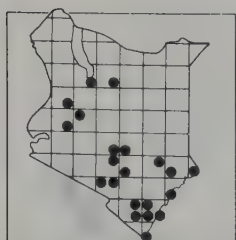
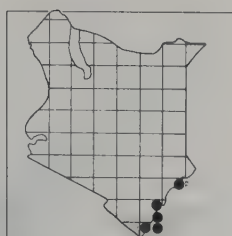
Mnago, Okarede, Wadareh (SWA), Warendi (BAJ), Muwarade (ILW), Kyaa (KAM), Waradhe (ORM, SOM), Noswo (TUG). Fruit edible; wood used in carpentry and as timber; bark used for tanning skins; a decoction is used as a fever remedy in adults by the Tugen.

4. *Manilkara sansibarensis* (Engl.) Dubard

Tree 6-25m, evergreen; sometimes with slightly buttressed base and fluted bole; bark light grey, grooved. Leaves obovate, base cuneate, apex rounded and



Manilkara discolor

*Manilkara mochisia**Manilkara sansibarensis*

emarginate or obtuse, 4-15 by 2-6cm, glabrous or nearly so. Flowers white or cream, in groups of 4-12 in axils of leaves; corolla 4-6.5mm long. Fruit ellipsoid or subglobose, to 1.3cm long.

K7; 1-450m; I, IV, X-XII

Moist or dry evergreen forest and *Brachystegia* woodland.

Mngambo (SWA, DIG, GIR), Doka (SAN). Timber resistant to wear and tear, durable in water, used for construction work under water and for dhow-building. Fruit edible. A bark infusion is used by the Digo against pneumonia.

5. *Manilkara sulcata* (Engl.) Dubard

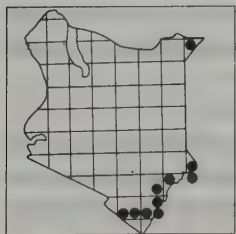
Shrub or tree 1.8-12m, evergreen; bark grey, slightly grooved. Leaves obovate, base cuneate, apex obtuse or rounded and often emarginate, 2.5-8 by 0.8-3.3cm, glabrous or nearly so. Flowers cream or greenish yellow, in groups of 2-6; corolla 3.5-5mm long. Fruit yellow, ellipsoid, to 1cm long.

K17; 1-900m; II, IV-VI, XI *

Dry evergreen forest (margins), woodland/bushland and thickets.

Mcheji-Ndume, Mteweji (SWA), Mkuraki (BAJ), Kurag (BON), Muchedzi (GIR), Kuraga (SAN). Fruit edible. Timber used for rough building.

Note: the record from Ramu/El Wak area (Gilbert & Thulin 1627) is very puzzling, being far away from the normal area; but the specimen is undoubtedly this species, and the habitat is woodland/bushland. Elliot K126, from Mbogolio is, I think, mislabelled.

*Manilkara sulcata*

8. MIMUSOPS

Stipules caducous. Flowers axillary, pedicellate; sepals 8 in 2 dissimilar whorls, petals 8, upper parts 3-lobed, with a short basal tube. Stamens 8, staminodes 8. Fruits 1-several seeded.

1. Flower pedicel 5-10mm long, or if up to 15mm then young leaves densely rusty-pubescent 2
- * Flower pedicel 10-50mm long, or if less than 15mm the young leaves glabrous or nearly so 4
2. Leaf stalks rusty-pubescent; coastal plants found below 500m 3
- * Leaf stalks glabrous, inland plants found above 1000m 2. *M. bagshawei*
3. Leaves clustered in terminal rosettes; woodland or bushland species 6. *M. schliebenii*
- * Leaves not clustered, moist forest species 1. *M. aedificatoria*
4. Corolla lobes 12-17mm long; fruit to 35mm across; rare riverine tree 5. *M. riparia*
- * Corolla lobes less than 12mm long; fruit up to 25mm across; common trees/shrubs 5
5. Flower pedicel 10-25mm long; coastal plants found below 500m 4. *M. obtusifolia*
- * Flower pedicel (14)20-50mm long; inland plants found above 1000m 3. *M. kummel*

1. *Mimusops aedificatoria* Mildbr.

Tree 24-30m, slightly buttressed at base. Leaves elliptic or slightly obovate, base cuneate, apex acuminate (acute), 6-15.5 by 1.8-5cm, rusty-pubescent when young but becoming glabrous. Flowers cream, 2-4 per axil; corolla to 7.5mm long. Fruit yellow, subglobose or ellipsoid, to 2 by 1.5cm.

K7; 50-400m; IV *

Mkongani, Mwele, Mrima, Buda and Shimba Hills, in moist forest.

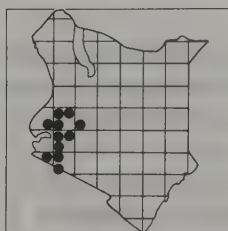
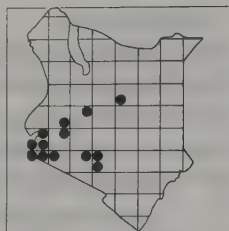
2. *Mimusops bagshawei* S. Moore

Tree 15-27(+)m; bark greybrown, rough, corrugated. Leaves elliptic (obovate), base cuneate, apex acuminate, 6-14 by 2.5-5.5cm, glabrous or nearly so. Flowers (greenish) cream, 2-4 per axil; corolla to 6.5mm long. Fruit yellow or orange, subglobose with pointed apex, to 3 by 2cm.

K356; 1200-2400m; III-IV, VII, IX-X *

Moist forest or riverine forest.

Lalwet (KIP), Ludolia (LUH), Olalwait (MAA), Leliat

*Mimusops bagshawei**Mimusops kummel*

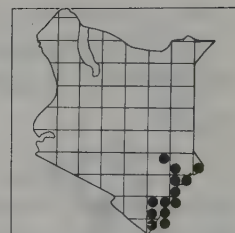
(NAN), Lalum (TUG). Fruit edible; wood used for furniture; bark much prized by elephants.

3. *Mimusops kummel* A.DC.

Tree 4.5-30m, rarely a shrub. Bark usually dark grey and corrugated. Leaves elliptic or slightly obovate, base cuneate, apex shortly acuminate or obtuse, 4-12 by 1.5-5cm, glabrous or nearly so. Flowers white, 2-4 per axil; corolla 10-14mm long. Fruit yellow, orange or red, ellipsoid with pointed top, to 2.5cm long.

K13456; 1200-2250m; I-II, V-VI, VIII, XI-XII

Riverine, around Nairobi also in dry evergreen forest. Mugambwa, Mugunachano (KIK), Mwelia (KAM), Ochond-Achak (LUO), Lolowa, Lalun (TUG), Lalwat (KIP). Fruit edible. Sometimes used for timber.

*Mimusops obtusifolia*

4. *Mimusops obtusifolia* Lam.

(*M. fruticosa* A.DC.)

Tree 9-20m or close to the sea a shrub 1-4m, evergreen; bark grey, corrugated or grooved. Leaves elliptic or obovate, base cuneate, apex rounded and often emarginate, 3.5-8 by 1.5-5.5cm, glabrous or minutely puberulous. Flowers white or cream, many per axil; corolla to 11mm long. Fruit orange or red, globose, 1-2.5cm across.

K7; 1-400m; I, II-XII

Coastal evergreen bushland, landward side of dunes or mangrove, dry evergreen forest.

Mgamba-Kapee, Mnguvi (SWA), Munugau (ILW), Kolati (ORM, SOM), Mugau (PKM). Fruit edible; timber hard, used for dhow-building.

Resembles *Manilkara sansibarensis*.

5. *Mimusops riparia* Engl.

Tree 12-20m; bark grey, grooved. Leaves elliptic or slightly obovate, base cuneate, apex obtuse or shortly acuminate, 6-13 by 4-8cm, glabrous. Flowers cream, 1-3 per axil; corolla to 20mm long. Fruit yellow or orange, subglobose, to 3.5cm across.

K7; 100-900m; - *

Riverine. Two Kenyan collections only, from Lumi river (Taveta) and Tana river (alt. 120m, no locality). Moruba, Momba (TAV).

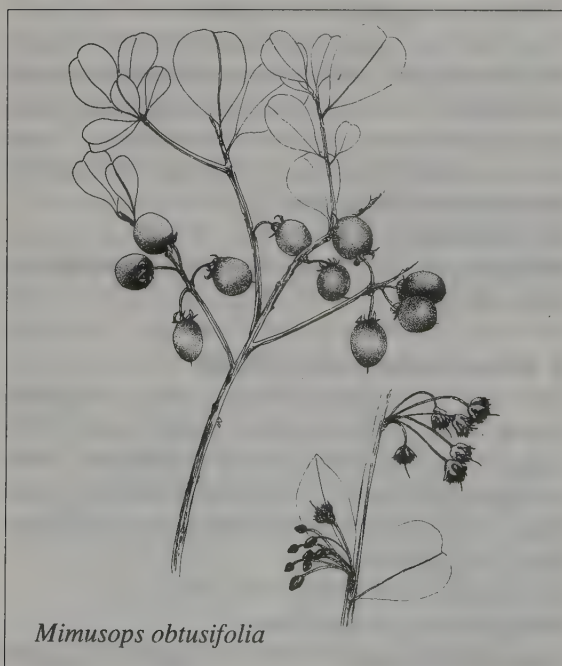
6. *Mimusops somaliensis* Chiov.

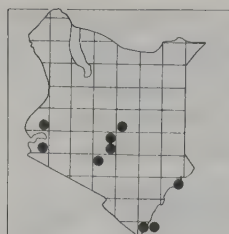
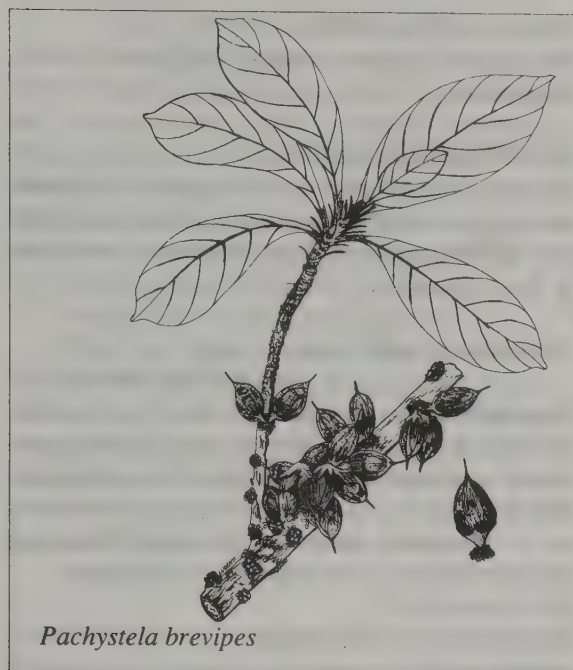
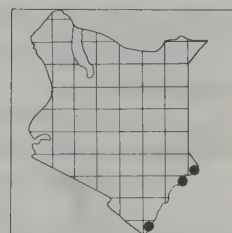
(*M. schliebenii* Mildbr. & G.M. Schulze) RARE

Tree, 18-20m. Leaves clustered at branch apex, elliptic to slightly obovate, base cuneate, apex obtuse, 3-11 by 2-4.5cm, densely reddish-hairy beneath when young but becoming glabrous. Flowers 1-2 per axil (often of a fallen leaf); corolla to 7.5mm long. Fruit ovoid, to 29 by 17mm.

K7; 100-450m; II, XI *

Samburu, Kakoneni, Kilibasi and inland from Kinango, in woodland and evergreen bushland now being burned for charcoal; may be locally common.

*Mimusops obtusifolia*

*Pachystela brevipes**Pachystela subverticillata*

K457; 1-1500m; I-III, VII-IX, XII *

Riverine forest, moist forest (remnants) or groundwater forest.

Msamvia (SWA), Kinoa, Munoa (KIK), Kang'o (LUO). Fruit edible. Wood hard, durable.

2. *Pachystela msolo* (Engl.) Engl.

Tree 10-12(50)m; bole deeply fluted, pillared near base. Stipules to 15mm. Leaves obovate, base almost auriculate or obtuse, apex rounded to shortly acuminate, 10-35 by 4-14cm, glabrous or minutely hairy beneath. Flowers greenish white, shortly (4-6mm) pedicellate and clustered on small warty projections; corolla to 6mm long. Fruit, subglobose, to 2.5cm across.

K7; 1-100m; I *

Riverine forest on lower Tana R., Miongoni (Kwale) Mtsamvia (DIG). Fruit edible.

3. *Pachystela subverticillata* E.A. Bruce

VULNERABLE

Shrub or small tree 3-5.5(8?)m. Stipules to 10mm. Leaves clustered at branch tips, obovate, base cuneate, apex obtuse or emarginate, 5-13 by 2-6cm, glabrous or nearly so. Flowers cream, sessile in dense clusters in leaf axils or on older wood; corolla to 9mm long, clasped by calyx. Fruit unknown.

K7; 1-300m; I, XII *

Moist forest, or riverine in dense bushland/woodland. Msamvia-Wa-Mwitu, Mchambi (SWA).

4. *Pachystela taxon A*

VULNERABLE

Tree 6-12(more?)m. Leaves as in *P. msolo* but with clear tertiary venation on both surfaces; stipules absent; the flowers are sessile; the fruit resembles that of *P. brevipes*.

K7, Shimba Hills; 250-400m; - *

Moist forest (e.g. Moomaw 1056, Faden et al. 69/487, 72/69). Taxon discovered by Q. Luke.

9. PACHYSTELA

Stipules present, linear, persistent. Flowers congested in older leaf axils or on old wood, sessile or pedunculate. Sepals 5. Corolla lobes connate only at base. Stamens 5, staminodes present or absent. Fruit 1-seeded.

1. Leafbase cuneate; flower pedicels 4-6mm 2

* Leafbase obtuse or auriculate; flower pedicels 0-2mm 3

2. Flower pedicels 1-2mm; leaves not clustered

1. *P. brevipes*

* Flowers sessile; calyx clasping; leaves almost whorled at branch tips 3. *P. subverticillata*

3. Tertiary venation of leaf invisible or nearly so

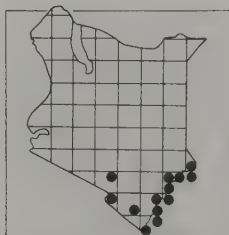
2. *P. msolo*

* Tertiary venation of leaf clear on both surfaces

4. *P. sp. A*

1. *Pachystela brevipes* (Baker) Engl.

Tree 3-25m, evergreen; bole deeply fluted, slightly buttressed at base. Stipules to 12mm. Leaves obovate, base cuneate, apex obtuse or acuminate, 9-20 by 3-9cm, glabrous (or greyish pubescent in young leaves). Flowers cream, subsessile in dense clusters below the leaves; corolla to 6.5mm long. Fruit yellow or orange, ellipsoid with a pointed top, to 2.5cm long.

*Sideroxylon inerme***10. SIDEROXYLON**

Sepals 5, corolla lobes 5 (rarely 4/6), with a tube; stamens 5, plus staminodes. Fruit single-seeded.

***Sideroxylon inerme* L.**

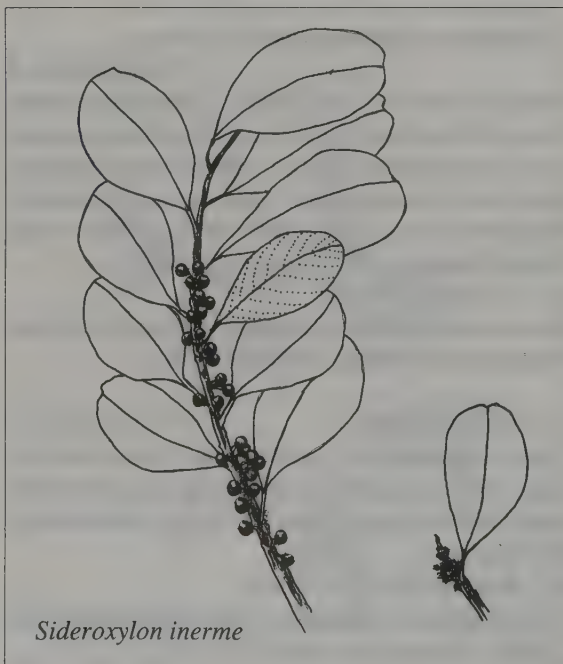
ssp. *diospyroides* (Baker) J.H. Hemsl.

(*Sideroxylon diospyroides* Baker)

Evergreen shrub or tree 1-12m; bark grey, fissured. Leaves obovate, base attenuate or cuneate, apex obtuse to emarginate, 4-12 by 2-6.5cm, glabrous. Flowers greenish-white, in pedicels to 7mm, clustered in (old) leaf axils; corolla to 4mm long. Fruit purple to black, globose, 6-15mm across.

K47; 1-900m; I-II, IV-V, X-XII (IV).

Near the highwater mark on the edge of coastal evergreen bushland, in dune scrub, or on the landward side of mangrove; less frequently in (more inland) coastal bushland; inland only found in riverine thickets along

*Sideroxylon inerme*

Kiboko and Tsavo Rivers.

Mkokobara, Mtunda, Mtunda-Wa-Ngombe (SWA).

Fruit edible.

11. VITELLARIOPSIS

Leaves crowded at shoot apices. Sepals 8 in 2 dissimilar whorls; corolla of 8 parts with a short basal tube, each member usually 3-lobed. Stamens 8, staminodes 8. Fruit a berry.

***Vitellariopsis kirkii* (Baker) Dubard**

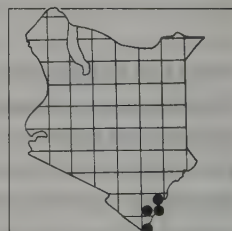
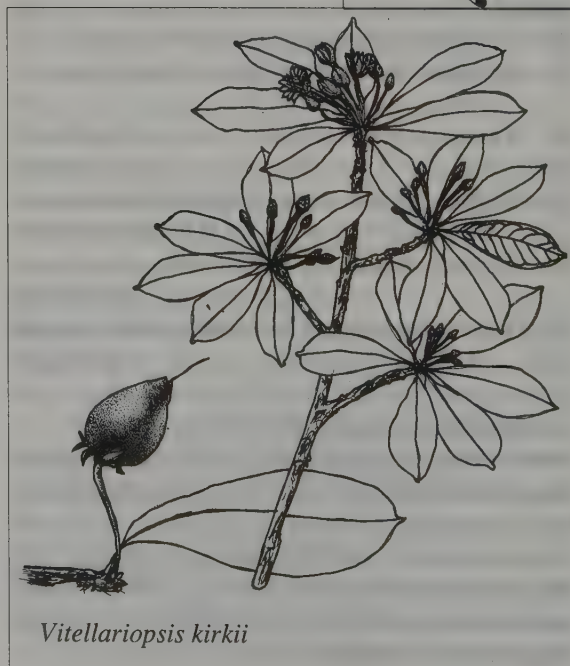
RARE/VULNERABLE

Shrub or tree 3-5m. Stipules persistent, linear. Leaves crowded at twig tips, obovate, base cuneate, apex shortly acuminate or obtuse, 3-7 by 1.5-3cm, glabrous. Flowers cream to yellow, several together in leaf axils on 17-28mm long peduncles; corolla to 9mm long. Fruit ovoid with a short acumen, to 4cm across.

K7; 1-500m; IX *

Dry coastal forest or bushland, mostly on shale.

Mlilangwe (SWA).

*Vitellariopsis kirkii**Vitellariopsis kirkii*

223. MYRSINACEAE

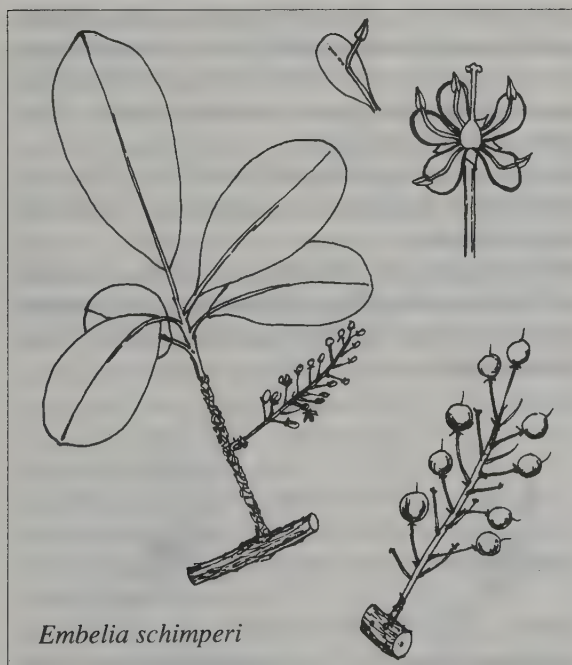
(by Quentin Luke)

Leaves alternate, simple, exstipulate, often with resin dots. Inflorescence in clusters, panicles or racemes. Flowers small, petals 4-5(6) shortly united or free (*Embelia*). Stamens same number, connected to the petals. Ovary superior except in *Maesa*. Fruits of all species reportedly have anthelmintic properties.

1. Petiole < 8mm, flowers in clusters 2
- * Petiole > 10mm, flowers in racemes or panicles 3
2. Leaf margin entire, leaves longer than 2.5cm 4. *Rapanea*
- * Leaf margin serrate, leaves smaller 3. *Myrsine*
3. Leaf margin entire, flowers in racemes 1. *Embelia*
- * Leaf margin with some teeth, flowers in panicles 2. *Maesa*

1. EMBELIA

Branches with conspicuous lenticels; often with short, leafy, curved spur shoots & ferruginous hairs on new growth (particularly *E. keniensis*), otherwise glabrous. Inflorescence a many-flowered, bracteate, axillary raceme. Flowers to 6mm on stalks to 6mm, 4-5 petals, felty, light green to cream, reflexed. Fruit sub-globose



Embelia schimperi

to globose, smooth, single-seeded, to 7mm diameter.

1. Leaves usually longer than 8cm, veins conspicuous, 4-7 pairs 1. *E. keniensis*
- * Leaves usually shorter than 8cm, veins invisible or faint, > 8 pairs 2. *E. schimperi*

1. *Embelia keniensis* R.E. Fries

VULNERABLE-ENDANGERED

Shrub or climber to 10 m. Leaves ovate to elliptic, base cuneate (decurent), apex acute to shortly acuminate, (5) 8-13 by 3-8cm, margin slightly inrolled at base. Veins strongly impressed above, purple in new leaf. Racemes to 4cm, petals 5. K4; 1500-2100m; VII *
Rare, known only from Mt. Kenya in 1922 and Tigoni today.

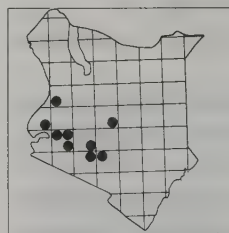
2. *Embelia schimperi* Vatke

Shrub or climber. Leaves obovate to lanceolate, base cuneate (decurent), apex acute to acuminate, 5-8(11) by 3-4(6.5)cm, shiny dark green above, paler beneath, slightly fleshy with new leaves sometimes reddish, margin often revolute. Racemes to 5cm usually on leafless part of stem, petals 4-5 usually speckled and sometimes tinged pink. Fruits red to purple, speckled (dry only?).

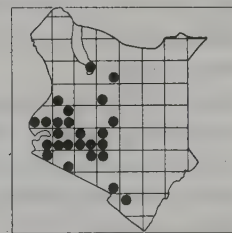
K3456; 1500-2600m; I, III-VI, XII *

Upland evergreen forest.

Matindia ariithi (KIK), Kibugonit, Chackweet (KIP), Ol sani-onyukie (MAA). Leaves edible raw (sorrel-like); roots and dry seeds anthelmintic.



Embelia schimperi



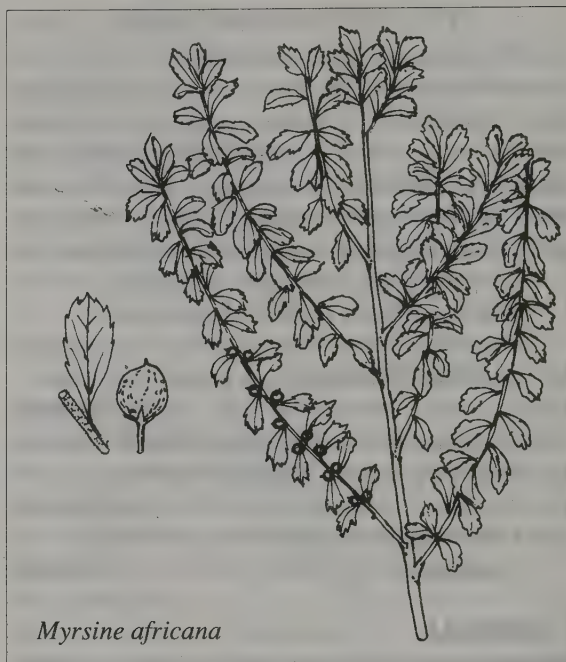
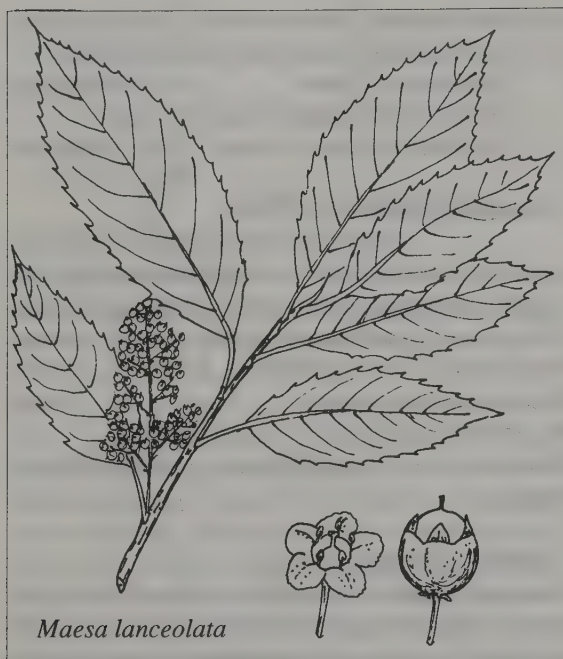
Maesa lanceolata

2. MAESA

Trees or shrubs, inflorescence an axillary panicle. Petals (4)5, shortly joined. Fruit several-seeded.

Maesa lanceolata Forssk.

Tree 1.2-10m, more often shrubby 4m, branches len-



ticellate, hairy or glabrous with orange/red resin. Leaves very variable, usually elliptic, base cuneate to rounded, apex obtuse to acuminate, margin strongly dentate to almost entire, 6-15(18.5) by 3-7(10)cm, often with resin dots underneath; petiole usually longer than 2.5cm. Panicles many-flowered to 16cm, flowers to 5mm, petals rounded, spreading, creamy white to beige. Fruit globose, 4mm, yellow/red with 'ring' of calyx lobes near apex, dangling in clusters.

K1(2?)34567; 1300-2800m; I-XII (VI)

Widespread, often in secondary forest. A pioneer in forest margins.

Boria (CHE), Mundonge, Mundume (KIK), Omoterere (KIS), Lisebesebe, Mushebeshebe (LUH), Kalatera, Sangla-Rau (LUO), Ol-reteti (MAA), Mborio, Kibotion, Ribotio (MAR), Mwenyuka, Mwago (MER), Kibabustaniet (NAN, TUG), Kibiago kobortet, Gogorwo (SEB). Fruits reportedly very sweet. Roots and fruits used medicinally though possibly toxic in large doses.

3. MYRSINE

Shrubs or small trees. Flowers in axillary clusters. Petals 4, stamens large in relation to petals, joined together by a collar. Fruit single-seeded.

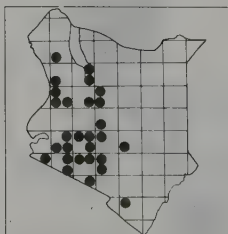
Myrsine africana L.

Undershrub to small tree 1-5m. Branches grey-brown to purple, striated, new shoots densely hairy. Leaves sub-sessile, crowded, stiff and glabrous, very variable in shape, usually elliptic to obovate, base cuneate, apex rounded to acute, 0.5-2 by 0.3-1.2cm; margin mostly spinulose in upper half. Flower clusters amongst leaves on new growth, flowers 3mm, greenish white to pink with crimson anthers in male flowers. Fruit globose, 5mm, dark purple.

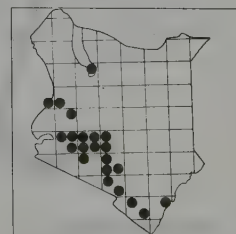
K1234567; 1500-3000m; I, III-VI, VIII, X-XII (V).

Widespread, particularly in upland dry forest and rocky hillsides.

Muketa-munini (KAM), Mugaita (KIK), Osegeteti (KIP), Ol-segetiti (MAA), Segatet (MAR), Parapara (POK), Seketeta (SAM), Segetetwa (MAR, TUG), Ekaiyi (TUR).



Myrsine africana



Rapanea melanophloeos



Rapanea rhododendroides (Gilg) Mez
a: fruiting branchlet ($\times \frac{1}{2}$); b: fruits ($\times 1$); c: part of flowering branchlet ($\times 1$);
d: flower ($\times 4$); e: L.S. flower ($\times 4$).
a & b: from Anstey 9331; c-e: from Bally 12129.

4. RAPANEA

Trees. Flowers in clusters. Petals (4)5(6), recurved. Stamens lying along the petals, almost completely attached. Fruit single-seeded.

Rapanea melanophloeos (L.) Mez.

[*R. pulchra* Gilg & Schellenb., *R. rhododendroides* (L.) Mez.]

Tree 4.5-20m, evergreen; bark grey/brown, thick, blood red and granular inside. Young branches purplish, glabrous or occasionally hairy, rough with prominent leaf scars. Leaves subsessile, clustered at branch ends, elliptic to obovate, base cuneate (decurrent), apex obtuse to acute, 5.5-11(17) by 1.7-5cm, glossy above, glabrous often with resin dots and streaks. Midrib and petiole usually red when young. Flower clusters usually below leaves on old wood from scaly 'knobs'. Flowers to 5mm across on stout stalks to 7mm, white to yellow/green with comparatively large anthers. Fruit purple, globose, 5mm.

K1234567; (100)1200-3800m; I-VIII, X, XII (XII) Widespread in upland forest to edge of moorlands. The single collection from the coast (Sokoke) needs further investigation.

Rapanea (STAND), Mugaita (TRADE, KIK), Situtua (ELG, NAN, SEB), Sitotwet (MAR), Ol-engabbura

(MAA), Karabar (MAR), Mugeta, Muthitha (MER), Kwarabariet (NDO), Sirtuot (POK). Bark, roots and fruits used as an anthelmintic. Timber hard, medium weight, not durable in the ground.

228. LOGANIACEAE

Leaves opposite or in threes/fours. Inflorescence cymose. Flowers 4-5-merous. Fruit a capsule or a berry.

1. Leaves over 15cm long; corolla lobes 8-16; fruit a hard berry 3-4.2cm long

1. *Anthocleista*

- * Leaves usually smaller; corolla lobes 4-5; fruit either a capsule or less than 1 cm long 2

2. Leaves usually 3-nerved from base; fruit a berry > 1cm

5. *Strychos*

- * Leaves not 3-nerved; fruit a capsule < 1cm 3

3. Flowers 5-merous; fruit 2-lobed 3. *Mostuea*

- * Flowers 4-merous; fruit not lobed 4

4. Leaves opposite, whitish-or yellowish-tomentose beneath

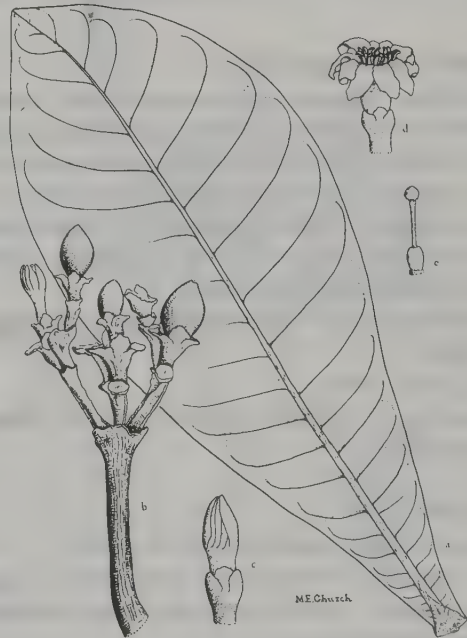
2. *Buddleia*

- * Leaves either sparsely hairy, or in threes

4. *Nuxia*

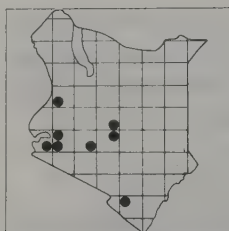
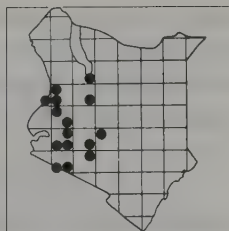
1. ANTHOCLEISTA

Leaves opposite. Sepals 4, corolla lobes 8-16; stamens exserted. Fruit a hard berry.



Anthocleista zambesiaca Baker

a: leaf ($\times \frac{1}{2}$); b: branchlet with a bud and young fruits ($\times \frac{1}{2}$); c: bud ($\times 1$);
d: flower ($\times \frac{1}{2}$); e: gynoecium ($\times 1$).
a: from Drummond & Hemsley 1672; b: from Battiscombe 1301; c & e: from Verdcourt 225; d: from Semei 1510.

*Anthocleista grandiflora**Buddleia polystachya*

1. Branches unarmed; corolla tube 22-37mm long

1. *A. grandiflora*

- * Branches spiny; corolla tube 12-18mm long

2. *A. vogelii*

1. *Anthocleista grandiflora* Gilg

(*A. zambesiaca* Bak.)

Tree 10-25m; bark brown-grey. Leaves narrowly obovate, base narrowing but clasping at the stem, apex rounded, 20-70 by 10-25cm (in saplings to 1.2m long), glabrous. Flowers cream or white, in erect terminal cymes to 45cm long; tube 22-37mm long, lobes 11-13 in number, 13-22mm long. Fruit green, ellipsoid, 30-42mm, wrinkled when dry.

K34567; 1250-2200m; I-II, IV, IX *

Along rivers in forest areas, in swamp edges.

Cabbage tree (STAND), Mutunguru (KIK), Masombo-bet, Sagalitu (KIP), Mutete (MER). Wood perishable.

2. *Anthocleista vogelii* Planch.

Tree, 6-20m. Branches spiny near the nodes. Leaves obovate, base attenuate but the extreme base clasping, apex rounded, 15-45 by 6-24cm (in saplings to 1.5m long), glabrous. Flowers cream or pale yellow, in terminal cymes to 50cm long; tube 12-18mm long, lobes 12-19mm long and 13-16 in number. Fruit green, round or ellipsoid, smooth.

K5; collected in 1950 in Kakamega Forest (Feltham EA 10290)

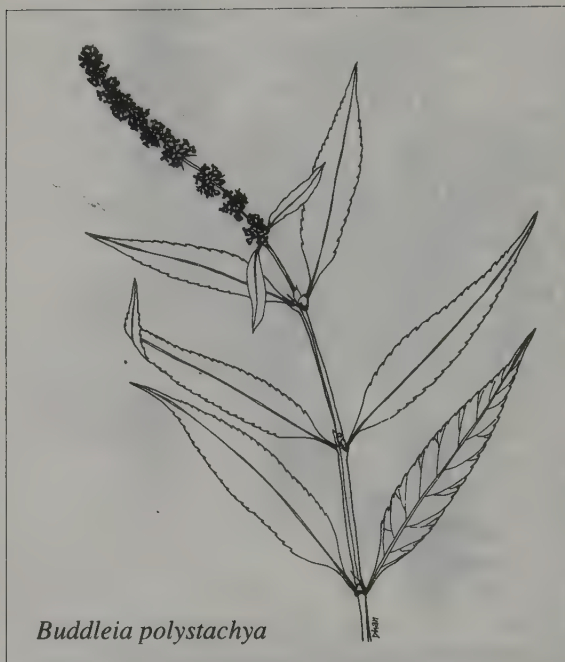
Along rivers in forest.

Cabbage tree (STAND), Mulemwe (LUH). Wood light, perishable.

2. BUDDLEIA

(also spelled *Buddleja*) (by Stella Wattima)

Leaves opposite. Inflorescence paniculate, of compound racemes. Flowers 4-merous. Fruit a capsule. Seeds winged or tailed.

*Buddleia polystachya*

1. Leaf margin (at least partly) toothed

1. *B. polystachya*

- * Leaf margin entire (Taita Hills) 2. *B. pulchella*

1. *Buddleia polystachya* Fres.

Shrub or tree to 6m, erect or straggling; bark pale brown. Leaves (narrowly) ovate or elliptic, base attenuate, apex acute, margins serrulate, 5-15 by 1-5cm, whitish or yellow-tomentose beneath. Flowers reddish orange with a paler tube, in compound racemes to 15cm long; corolla 4-6mm long. Fruit ellipsoid, about 5mm long.

K123456; 1000-2700m; I-XII (II, XII)

Montane forest and bushland.

Muthimbari, Muchorowe, Ruti (KIK), Ol-biran (MAA), Musereti, Gelelwa (MAR), Chorennet (NAN), Choruet, Chorua (MAR, NAN), Pinet (NDO), Ngurangura (SAM).

2. *Buddleia pulchella* N.E. Br.

Straggling shrub to 4m; bark brown. Leaves ovate, base attenuate or rounded, apex acute to minutely apiculate, 2.5-7.5 by 1.5-2.5cm, yellow-tomentose beneath. Flowers orange, cream or whitish, in pyramidal compound racemes; corolla 5-11mm long. Fruit ellipsoid, 4.5-6mm long.

K7; 1600-2000m; VII *

Forest margins and montane bushland; in Kenya only at Ngangao forest.

Ngombe (TAI).

3. MOSTUEA

Leaves opposite. Inflorescence axillary or terminal; flowers 5-merous. Fruit a capsule.

1. Sepals acute

* Sepals obtuse

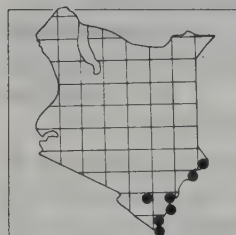
1. *M. brunonis*

2. *M. microphylla*

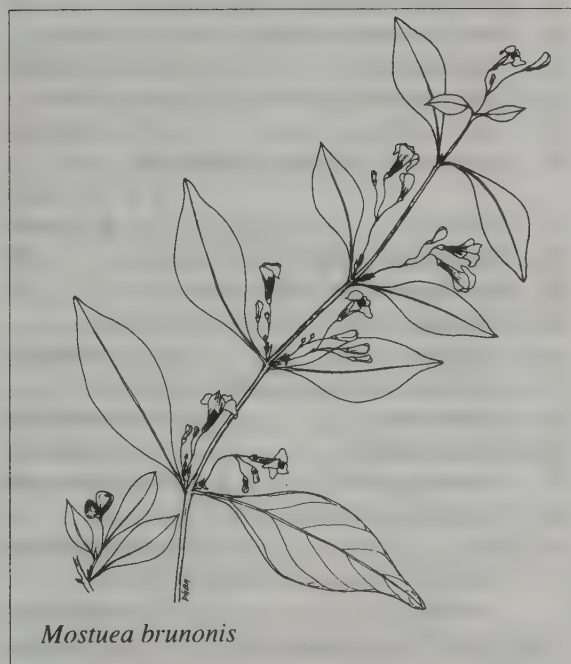
1. *Mostuea brunonis* Didr.

[*M. walleri* Bak., *M. brunonis* Engl.]

Shrub 0.3-3m. Leaves ovate or elliptic, base cuneate, apex acute or obtuse and apiculate, 0.6-9 by 0.3-4cm, glabrous or sparsely hairy; domatia often present. Flowers white, yellow at the base of the tube, 1-several together; tube 5-13mm long, lobes 3-5mm long. Fruit 2-lobed, 5-7mm long.



Mostuea brunonis



Mostuea brunonis

K7; 1-450(1450)m; II-IV, VIII-XII.

Forest, *Brachystegia* woodland or wood/bushland (Boni)

Mtandara (DIG).

A group with tiny leaves and densely hairy fruits has been separated as var. *obcordata* Leeuwenberg.

2. *Mostuea microphylla* Gilg.

Shrub 1-1.5m. Leaves ovate, up to 3.5 by 2.3cm, rather hairy. Flowers white; corolla 4-8mm long.

K7; known from Rabai, Boni F.R. and Kitangani in Lamu; XII *

Edamojo (BON).

4. NUXIA

Leaves opposite, ternate or quaternate. Inflorescence terminal; flowers 4-merous. Fruit a capsule.

1. Leaves in threes or fours 2

* Leaves opposite 3

2. Petiole 3-20mm; calyx 3-8mm; corolla lobes hairy outside 1. *N. congesta*

* Petiole 3-55mm; calyx 2.5-4mm; corolla lobes almost glabrous outside 2. *N. floribunda*

3. Leaf apex acute or acuminate 2. *N. floribunda*

* Leaf apex rounded or obtuse

3. *N. oppositifolia*



M.E. Church

Nuxia congesta R. Br. ex Fresen.

a: flowering branchlet ($\times 4$), b: flower ($\times 4$), c: L.S. flower ($\times 4$).
All from Bally 5583.

1. *Nuxia congesta* Fres.

Figure: see p. 463

Shrub or tree 4.5-25m; trunk in larger trees fluted; bark pale greybrown, flaking. Leaves in threes (rarely in 4), (narrowly) elliptic or obovate, base cuneate, apex acuminate, obtuse or emarginate, margins entire or serrate (esp. when young), 1-15 by 2-7.5cm, glabrous to stellate-tomentose. Flowers white, in panicles to 15cm; corolla tube 3-8mm, lobes 2-5mm long. Fruit barely longer than the calyx.

K1234567; 1550-2850m; I-VIII, X-XII (XII-II, VII) In light upland or montane forest, and there often common; also in the bamboo zone and on hilltops above the forest margin.

Muchorowe (STAND), Mukalaliki/mu'u (KAM), Muchorowe/Mwanda (KIK), Lubambo, Inoyna (LUH), Ol-burin (MAA), Chorua (MAR, NAN, KIP, SEB), Selta (POK), Murosuet (SEB), Kerruwa (TUG), Akwanga/Eonochorie (TUR), Mgaraso, mora (TAI). Branches used as firesticks; wood soft, white, used for building.

2. *Nuxia floribunda* Benth.

Tree 6-24m; bark rough, grey. Leaves opposite or ternate, (narrowly) elliptic, base cuneate or attenuate, apex acuminate or acute, margins entire or dentate, 4-6 by 1-7cm, glabrous or sparsely glandular-hairy. Flowers white, in panicles to 30cm; tube 2.5-4mm; lobes about 2mm. Fruit longer than the calyx, 3-5mm long.

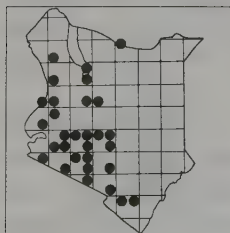
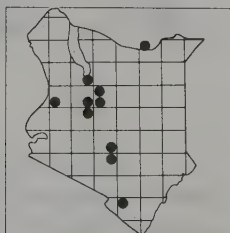
K467 (Taita Hills and Ngulia only); 1400-1800m; VII-VIII *

Forest (remnants).

Mora, Mwirigaso (TAI).

3. *Nuxia oppositifolia* (Hochst.) Benth.

Shrub or tree 4-9m. Leaves (sub) opposite, narrowly elliptic, base cuneate or decurrent, apex obtuse or rounded (and apiculate), 3-13 by 0.4-3 cm, glabrous or sparsely glandular-hairy. Flowers white or cream, in

*Nuxia congesta**Nuxia oppositifolia*

panicles to 7cm; tube 3.5-5mm; lobes 2-3mm long. Fruit as long as the calyx (3.5-5mm).

K12467; 700-2400m; I, IV, VI-VII, X, XII *

Riverine forest or -bush.

Leberondo (SAM), Mora (TAI). Wood hard.

5. STRYCHNOS

Trees, shrubs or lianas climbing with curled tendrils. Spines occasionally present. Leaves opposite, rarely ternate; often with basal veins reaching well into the upper half of the leaf lamina. Inflorescence thyrsoid; flowers 4-5-merous. Fruit a berry.

- | | | |
|----|--|----|
| 1. | Spines present | 7 |
| * | Spines absent | 2 |
| 2. | Lianas with tendrils | 3 |
| * | Shrubs or trees, without tendrils | 5 |
| 3. | Tendrils simple | 12 |
| * | Tendrils paired | 4 |
| 4. | Inflorescences terminal and axillary; corolla 3.5-5mm long; fruit 0.8-1.8cm across | |

9. *S. panganensis*

- | | | |
|---|---|--|
| * | Inflorescences axillary; corolla 7-9.5mm long; fruit 3-6cm across | |
|---|---|--|

10. *S. scheffleri*

- | | | |
|----|---|---|
| 5. | Inflorescence terminal (axillary infl. some-times also present) | 6 |
| * | Inflorescence axillary | 9 |
| 6. | Pistil hairy; fruit 6-15cm across | 7 |
| * | Pistil glabrous; fruit 1-2cm across | 8 |

- | | | |
|----|--|--|
| 7. | Bark and branches corky; sepals (at least at top) glabrous | |
|----|--|--|

2. *S. cocculoides*

- | | | |
|---|--|--|
| * | Bark and branches not corky; sepals evenly pubescent | |
|---|--|--|

11. *S. spinosa*

- | | | |
|----|------------------------------------|--|
| 8. | Shrub or tree of bush- or woodland | |
|----|------------------------------------|--|

3. *S. decussata*

- | | | |
|---|-------------|--------------------|
| * | Forest tree | 8. <i>S. mitis</i> |
|---|-------------|--------------------|

- | | | |
|----|-------------------------------------|----|
| 9. | Pistil glabrous; fruit 1-2cm across | 10 |
|----|-------------------------------------|----|

- | | | |
|---|----------------------------------|----|
| * | Pistil hairy; fruit 2-8cm across | 11 |
|---|----------------------------------|----|

- | | | |
|-----|---|--|
| 10. | Leaf apex rounded or acute; branchlets glabrous | |
|-----|---|--|

4. *S. henningsii*

- | | | |
|---|--|--|
| * | Leaf apex acuminate; branches (sparsely) pubescent | |
|---|--|--|

12. *S. usambarensis*

- | | | |
|-----|----------------|----------------------|
| 11. | Inland species | 5. <i>S. innocua</i> |
|-----|----------------|----------------------|

- | | | |
|---|-----------------|-------------------------------|
| * | Coastal species | 6. <i>S. madagascariensis</i> |
|---|-----------------|-------------------------------|

- | | | |
|-----|---------------------------------------|--|
| 12. | Leaf apex acuminate; flowers in cymes | |
|-----|---------------------------------------|--|

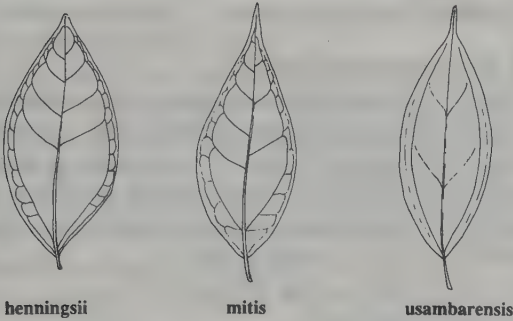
12. *S. usambarensis*

- | | | |
|---|--|--|
| * | Leaf apex obtuse and apiculate; flowers solitary | |
|---|--|--|

1. *S. angolensis*

Note: Inland forest trees are either *henningsii* (branches

not lenticellate, rounded or acute leaf apex, petiole 1-3mm, leaves reticulate), *mitis* (branches not lenticellate, acuminate leaf apex, petiole 2-5mm, leaf not reticulate) or *usambarensis* (branches lenticellate, acuminate leaf apex). Of the last two, *mitis* is the larger.



henningsii

mitis

usambarensis

A recent find is *7. S. mellodora*, keying out at leads 10b with *S. usambarensis*, but with glabrous branches; and at lead 8b with *S. mitis*, but coastal.

1. *Strychnos angolensis* Gilg

Climbing shrub or liana to 30m, rarely a tree to 12 m; bark smooth. Tendrils solitary. Leaves elliptic or obovate, base rounded or cuneate, apex obtuse and apiculate, 2-7 by 1-4cm, glabrous or pubescent on the veins. Flowers white to yellow, solitary, axillary or terminal; petals 2-2.5mm. Fruit orange or red, soft, ellipsoid or round, 12-22mm long.

K7, found once in Shimba Hills by R. Schmidt.

2. *Strychnos cocculoides* Bak.

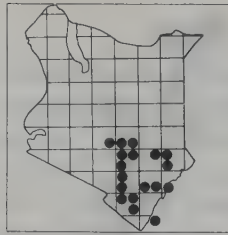
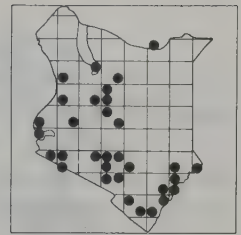
Shrub or tree 1-6m; bark ridged, corky. Branches often with recurved stipular spines, sometimes ending in a straight spine. Leaves ovate or elliptic, base cuneate to rounded, apex rounded or bluntly acuminate, 2-6 by 1-5cm, pubescent or glabrous, often with domatia. Flowers white or greenish-yellow, in congested terminal panicles to 4cm; corolla 4-5mm long. Fruit yellow or orange, round, 6-11cm.

K7; 1-50m; - *

Wooded grassland; known from Mombasa and Kurawa.

3. *Strychnos decussata* (Pappe) Gilg.

Shrub or tree 3-5m; bark smooth, grey. Leaves shiny,

*Strychnos decussata**Strychnos henningsii*

elliptic or (ob) ovate, base cuneate or rounded, apex rounded or obtuse, 2-5 by 0.8-3cm, glabrous. Flowers cream, in axillary or terminal cymes to 3cm; corolla 4-6mm long. Fruit yellow or orange, ellipsoid, 1.5-2cm long.

K47; 1-1100(1350??)m; IX-XII *

Dry bushland or woodland; often in rocky sites or on rock outcrops.

Musukari (ILW), Mutolongwe (KAM), Kitol (ORM), Msukari (PKM), Kitole (SOM). Fruit edible; wood hard.

4. *Strychnos henningsii* Gilg

Shrub or tree 2.5-12 (rarely to 20)m; bark pale grey, rough. Leaves glossy, leathery, elliptic or ovate, base cuneate or rounded (subcordate), apex rounded or acute, 2-6 by 1-3(4.5)cm, glabrous. Flowers white, cream or yellow, in dense axillary cymes; corolla 3-4mm long. Fruit yellow, orange or red, ellipsoid, 1-2cm long.

K1234567; 1-150 (coast) and 850-2100m; I, V-VI, IX-XII.

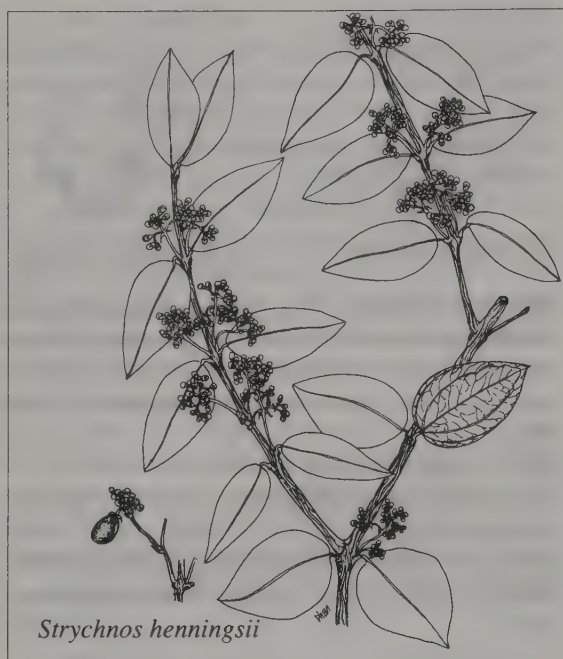
Drier types of forest; often associated with olive or podocarp; also in riverine bush or thicket, and in evergreen thickets on rocky hills.

Kara, Karrah (BOR), Muteta (KAM, KIK), Mase, Legutuet (KIP), Olduyesi (MAA), Muchambe (MER), Chibulukwa (SAM), Hadesa (SOM), Turubupwa, Turkukwa (TUG), Yopoliss (TUR). A bark decoction is employed against rheumatism and arthritis.

5. *Strychnos innocua* Del.

Shrub or tree, 2-12m; bark greybrown, rather smooth. Leaves elliptic, base cuneate or rounded, apex rounded, 4-10 by 2-7cm, glabrous or pubescent. Flowers cream, in axillary, few-flowered cymes; corolla 6.5-9mm long. Fruit yellow or orange, round, 4-7.5cm.

K2; known in Kenya from a single collection (J. Wilson 320, anno 1957) from a rocky outcrop at



Karameri, near Karasuk.
Fruit edible.

6. *Strychnos madagascariensis* Poir.

[*S. innocua* sensu KTS, *S. dysophylla* Benth.]

Shrub or tree, 2.5-12m, often with arching branches; bark pale grey, smooth or fissured. Leaves shiny, (broadly) elliptic, base cuneate or rounded, apex rounded (acute in shade branches), 2-10 by 1-4cm, glabrous or pubescent. Flowers greenish white or cream, in axillary few-flowered cymes; corolla 5-8mm long. Fruit orange, round, 2-8cm.

K7; 1-700m; IV, VI, XI-XII *

(Palm) woodland, wooded grassland, coastal thicket, thicket on rocky hills inland, dry forest margins.

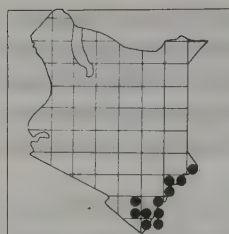
Kikwaka, M(u)wakwa (SWA, DIG, GIR), Korie (BON). The fruit pulp is edible.

7. *Strychnos mellodora* S. Moore

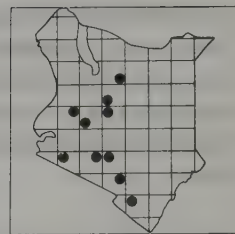
Tree to 35m. Leaves (narrowly) elliptic, base cuneate, apex acuminate, 5-12 by 2-5cm, glabrous. Flowers white, in axillary and seemingly terminal panicles to 11cm long; corolla to 3mm long. Fruit round or nearly so, 12-18mm.

K7; 350m; - *

Found once in Shimba Hills (R. Schmidt 1221)



Strychnos madagascariensis



Strychnos mitis

8. *Strychnos mitis* S. Moore

Tree 6-18m; bark greybrown, smooth. Leaves glossy, elliptic, base cuneate or rounded, apex acuminate (rarely obtuse), 4-11 by 1.5-5cm, glabrous (rarely pubescent). Flowers cream or yellow, in axillary and terminal dense cymes; corolla 3.5-4mm long. Fruit yellow or orange, round, 1-2cm.

K13467; 1-1950m; I-II, V-VI, VIII *

Dry or riverine forest.

Karaa (BOR), Mutikani (KIK), Mase (KIP), Ol-duyes (MAA), Itagurmut (SAM), Turukukwa (TUG). The wood is hard and used for building.

Note. Easily confused with *Memecylon* spp.

9. *Strychnos panganensis* Gilg

Scandent shrub or liana 1.5-10m long; branchlets with paired tendrils. Leaves ovate or elliptic, base cuneate to cordate, apex acute or shortly acuminate, 0.8-5 by 0.6-3cm, glabrous or nearly so. Flowers (greenish) white or cream, in terminal and axillary rather long cymes; corolla 3.5-5mm long. Fruit yellow, (almost) round, 0.8-1.8cm.

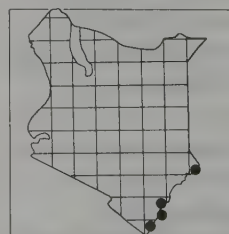
K7; 1-300m; II-III, X-XII *

Coastal thickets, (Brachystegia) woodland, or dry forest.

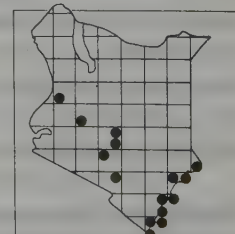
Mbugu-bafe (SWA), Ria, Mbeyu (GIR), Libugu (DIG).

10. *Strychnos scheffleri* Bak.f.

Liana up to 20 (or more)m; branchlets with paired tendrils. Leaves ovate or elliptic, base cuneate or



Strychnos panganensis



Strychnos spinosa

rounded, apex acuminate, 4.5-10 by 1.7-6.5cm, glabrous or nearly so. Flowers white, in axillary, lax cymes to 6cm; corolla 7-9.5mm long. Fruit yellow or orange, round, 3-6cm.

K7; 50-450m; VI, VIII *

Moist (often disturbed) forest: Shimba Hills, Witu, Dzombo and Mrima.

11. *Strychnos spinosa* Lam.

Shrub or tree 3-6m; branches often with pairs of straight or recurved spines. Leaves elliptic or (ob-)ovate, base cuneate or rounded, apex rounded to acute (acuminate), 2-10 by 1.5-7.5cm, glabrous or pubescent. Flowers pale green, or whitish, in terminal cymes to 3cm; petals 4-5mm long. Fruit yellow, round, resembling an orange, 7-15cm.

K347; 1-1550m; I-II, IV, VII-VIII, X-XII *

Inland in wooded grassland; on the coast in woodland, bushland, thicket, or dry forest margin.

Mtonga (SWA), Mangula (BON), Muhonga (DIG), Majaji (GIR), Gime (KAM), Kukengo (PKT), Bungo (PKM). The wood is hard; the fruit pulp is said (by the Giriama) to cause abortion.

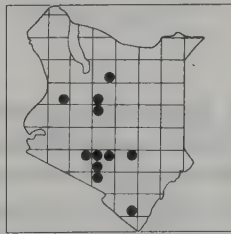
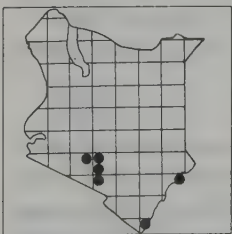
12. *Strychnos usambarensis* Gilg

Shrub or tree 1.5-6m (in other countries sometimes a liana to 20m with solitary tendrils); bark grey, smooth or granulated. Leaves ovate or elliptic, base cuneate or rounded, apex acuminate (to caudate), 3-8 by 1.2-3.5cm, glabrous. Flowers white or yellow, in axillary cymes to 2.5cm; corolla 2-3.5mm long. Fruit yellow or orange, round, 1-1.8cm.

K47; 1-300m (coastal) or 1300-1800m; III, XII *

Dry forest, evergreen thicket, riverine forest; also moist forest on Mrima Hill.

Gitarongui (KAM), Mutikani (KIK).



Strychnos usambarensis *Chionanthus battiscombei*

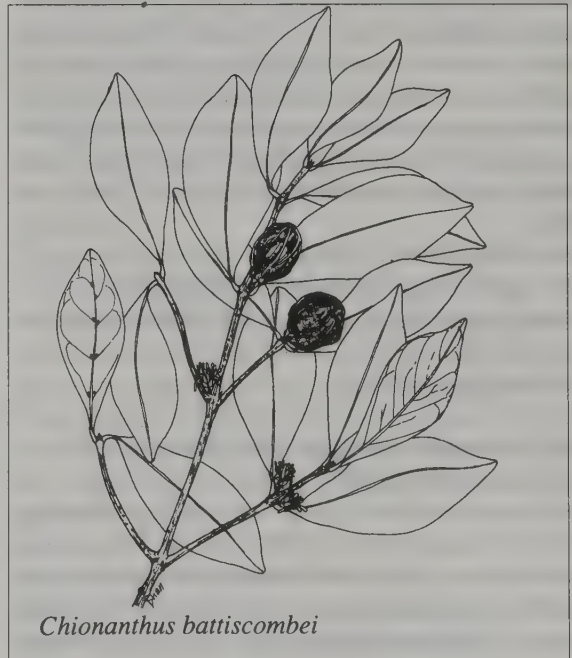
229. OLEACEAE

Leaves opposite or rarely verticillate, exstipulate, simple or pinnate. Inflorescence cymose, often paniculate, sometimes fasciculate, sometimes only 1-flowered. Flowers regular, with a tube and lobes; lobes 4-many. Stamens 2. Fruit a berry, drupe or capsule.

- | | |
|---|-----------------------|
| 1. Leaves pinnate, with 5 leaflets and winged rachis | 4. <i>Schrebera</i> |
| * Leaves simple, or rachis not winged | 2 |
| 2. Leaves with 3-5 leaflets | 2. <i>Jasminum</i> |
| * Leaves simple | 3 |
| 3. Climbers, or shrubs to 2.5m; flowers with 5 or more lobes | 2. <i>Jasminum</i> |
| * Shrubs or trees; flowers with 4 lobes | 4 |
| 4. Leaves with domatia in nerve-axils; flowers 4-9mm long | 1. <i>Chionanthus</i> |
| * Leaves without domatia, but with scales below; flowers 2-3mm long | 3. <i>Olea</i> |

1. CHIONANTHUS

Leaves simple, opposite; domatia usually present in axils of veins. Flowers in axillary paniculate cymes or fascicles, 4-merous. Corolla lobes linear. Fruit a drupe, 1-seeded.



Chionanthus battiscombei

1. Leaves with glabrous pits in nerve-axils
3. *C. niloticus*
- * Leaves with pubescent pits in nerve-axils **2**
2. Leaf apex long-acuminate; corolla lobes flat
2. *C. mildbraedii*
- * Leaf apex obtuse or short-acuminate; corolla lobes hooded
1. *C. battiscombei*

1. *Chionanthus battiscombei* (Hutch.) Stearn
 (*Dekindtia africana* Gilg, *Linociera battiscombei* Hutch.) Map and figure p. 467
 Shrub or tree 3-11(30)m, evergreen; with smooth grey or brown bark. Leaves shiny above, elliptic or slightly obovate, base cuneate, apex obtuse or short and bluntly acuminate, 4.5-13 by 1.5-5cm, glabrous but for pubescent domatia in nerve-axils. Inflorescence axillary, dense, sessile; flowers few to many, white or pale yellow, scented; corolla 5-6.5mm long, tube very short, lobes linear and hooded. Fruit purple or black, ellipsoid, about 1.5cm long.
 K13467; 850-2300m; V, VII-IX, XI-XII *
 Upland dry forest (remnants).
 Eteta (KAM), Musharage (KIK).

2. *Chionanthus mildbraedii* (Gilg & Schellenb.) Stearn
 [*Linociera giordanii* Chiov., *L. latipetala* MRF Taylor, *Olea mildbraedii* (Gilg & Schellenb.) Knobl]
 Shrub or tree 2.5-6(12)m, evergreen. Leaves (narrowly) elliptic or narrowly obovate, base cuneate, apex acuminate, 5-16 by 1.5-6cm, glabrous but for pubescent domatia in nerve-axils. Flowers in loose axillary panicles 3-9cm long; flowers whitish yellow or reddish-yellow, 6-9mm long, tube very short, lobes ovate and flat. Fruit bright red, ellipsoid, 1.6-1.7cm long.
 K5; 1550-2100m; V, IX *
 Wet upland forest (Kakamega and SW Mau)
 Note: Taita Hills Expedition 382, from Mbololo is possibly this species.
 Chebagoton (LUM)

3. *Chionanthus niloticus* (Oliv.) Stearn
 (*Linociera nilotica* Oliv.)
 Multistemmed shrub, or tree, 2.4-4 (18)m, bark yellow brown. Leaves elliptic or slightly obovate, base cuneate, apex obtuse or short and obtusely acuminate, 6-15 by 2.5-5cm, glabrous, with glabrous pits in the nerve-axils. Flowers in axillary, few- to several-flowered

cymes 0.5-1.5(6)cm long; flowers white or cream, fragrant, 4-7mm long, tube very short, lobes narrowly ovate, hooded at apex. Fruit blueblack ellipsoid or subglobose, to 2.5cm long.
 K35; 1350-1700m, III *
 In riverine bushland or riverine forest (once collected in Kodera forest, twice in Kipkarren).
 Wood tough.

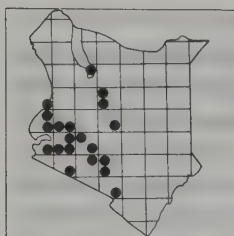
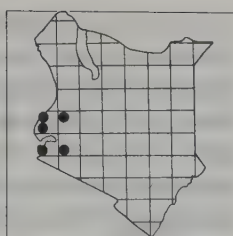
2. JASMINUM

Leaves opposite or verticillate; domatia sometimes present in nerve-axils. Inflorescence cymose, or flowers solitary. Flowers fragrant; corolla white or yellow, often pink outside; lobes (4) 5-13. Fruit a bilobed berry, often one lobe aborting; seeds 2.

1. Leaves compound **2**
- * Leaves simple **4**
2. Leaves (3) 5-7 (9) foliolate **3. *J. floribundum***
- * Leaves 3-foliolate **3**
3. Domatia usually present in lower nerve-axils only; petiolules of lateral leaflets 1-3 (5)mm
4. *J. fluminense*
- * Domatia present in nearly all nerve-axils; petiolules of lateral leaflets 4-18mm
1. *J. abyssinicum*
4. Leaves usually in whorls of 3
2. *J. dichotomum*
- * Leaves all (sub) opposite **5**
- * Leaves spirally arranged, not opposite
7. *J. punctulatum*
5. Domatia absent from leaves, leaves sparsely hairy (except *J. meyeri-johannis*) **6**
- * Domatia present in nerve-axils (sometimes hidden in dense pubescence) **7**
6. Leaves glabrous or hairy **5. *J. meyeri-johannis***
- * Leaves pilose **9. *J. stenolobum***
7. Corolla lobes 7-17 by 3-5mm **8. *J. schimperi***
- * Corolla lobes 10-20 by 1-2.5mm **8**
8. Small climber to 3m, in dry bushland or coastal woodland **10. *J. streptopus***
- * Robust climber 4.5-6m, in Kakamega forest
6. *J. pauciflorum*

1. *Jasminum abyssinicum* DC.

Climber, 1.8-7.5m (or more?). Leaves opposite, trifoliate, usually glabrous except for pubescent domatia in nerve-axils. Leaflets ovate or elliptic, base cuneate or rounded, apex rounded, acute or acuminate; termi-

*Jasminum abyssinicum**Jasminum dichotomum*

nal leaflet larger than the lateral ones, 2-7.5 by 1.5-5.5cm. Flowers terminal and lateral, solitary or in few-flowered cymes; flowers white or yellow-white, sometimes pink outside, tube 13-26mm, lobes (4) 5 (6) in number, 5-10 by 4-8mm. Fruit 1-or 2-lobed, lobes globose, 6-10mm across.

K13456; 1350-3000m; I-III, V-XII

Upland dry or wet evergreen forest edges, upland evergreen (secondary) bushland.

Mukaksu (KAM), Maago/Mwago (KIK), Moiywet (KIP), Oluseshe (LUH), Tunayit (LUM), Ollobito (MAA). Maasai use roots in soup, and stems to make rope for building.

2. *Jasminum dichotomum* Vahl.

Climber to 8m; bark rough, grey. Leaves mostly in whorls of 3, simple, ovate or elliptic, base cuneate, apex (shortly) acuminate, 3-9.5 by 2-5.5cm, glabrous, without domatia; basal veins prominent and ascending quite high. Flowers in terminal or axillary, many-flowered corymbs; flowers white inside, pink outside, tube 14-23mm, lobes 6-9 in number, 7-10 by 2-4.5mm. Fruit 1-or 2-lobed, ellipsoid, 6-10mm long.

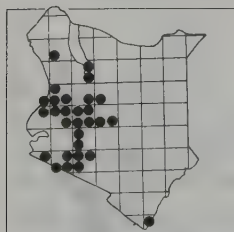
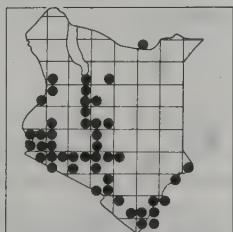
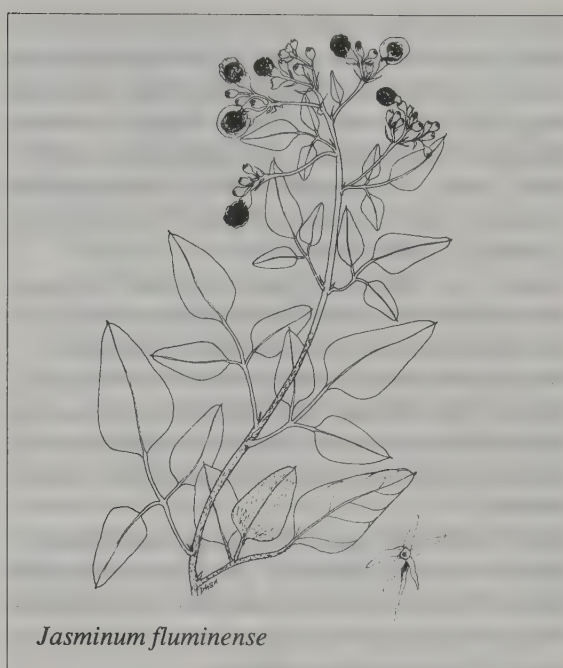
K35; 1200-1800m; II, V-VI, IX-X *

Thickets in grassland or clumped bush grassland.

Olusekhe (LUH), Oseke (LUO).

3. *Jasminum floribundum* Fres.

Low shrub or climber, 0.6-3m. Leaves opposite, imparipinnate, with (3) 5-7 (9) leaflets, glabrous;

*Jasminum floribundum**Jasminum fluminense**Jasminum fluminense*

leaflets ovate, base cuneate and often asymmetrical on the lateral leaflets, apex acute or acuminate, occasionally obtuse on the lateral leaflets; terminal leaflet larger than laterals, 1.5-5 by 0.6-2.5cm. Flowers in axillary or terminal, several-flowered cymes; flowers white or yellow, pink or red outside, tube 15-20mm long, lobes 5-6 in number, to 17 x 9mm. Fruit black, (1-)2-lobed, globose, to 8mm across.

K123456(7); (1200) 1600-2400m; I-XII

Clump bushland or bushed grassland on rocky hills. Often associated with *Tarchonanthus* or *Dodonaea*; less often in thickets on forest edges or in wooded grassland.

Chepokiot (KIP), Olopito/Olmainiyen (MAA), Kongara (MAR), Kaloyne (PKT), Esthono (TUR). A decoction of the leaves is used by Maasai and Kipsigis as a remedy for stomach worms.

Note. A single collection (Mahasi EA 14886) from Coast Province, Shimba Hills, Giriama Point is remote from all other collections and at much lower altitude (ca. 350m). The specimen, however, is definitely this species.

4. *Jasminum fluminense* Vell.

Shrub or climber to 6m. Leaves opposite, trifoliolate, glabrous to densely pubescent, domatia usually pres-

ent in lower nerve-axils; leaflets (broadly) ovate or elliptic, base cuneate or rounded, apex rounded, acute or acuminate; terminal leaflet larger than the lateral ones, 1.5-7 by 1-7cm. Flowers many in terminal corymbs, white or yellow, often pink outside, tube 11-35mm, lobes 5-9 in number, 6-16 by 2.5-5mm. Fruit blueblack, 1-or 2-lobed, subglobose, 5-7mm across. K134567; 1-2000(2700)m; I-XII

Coastal and inland evergreen bushland, deciduous bushland, thickets, bushed grassland, woodland, forest edges, riverine, also in secondary vegetation.

Mtunda ofu (DIG), Uthui (KAM), Moiywet (KIP), Seke (LUO), Ollobito (MAA), Manimani/Epeloch (TUR). Stems are used as a light rope; Kamba extract a black dye from the plant; Turkana use ground fruit to kill lice.

Note: I follow Kupicha in Flora Zambesiaca in considering this as one undivided species which is quite variable. Plants from the coast often have large glabrous leaves, and high altitude plants are often hairy, but these differences are not constant.

5. *Jasminum meyeri-johannis* Engl.

Shrub or climber to 2.5m. Leaves opposite, simple, glossy, ovate or elliptic, base cuneate or rounded, apex retuse, obtuse or acute, 2-7 by 1.5-3.5cm, glabrous; domatia absent. Flowers on short branchlets, solitary or in cymes; flowers white, pink outside, tube 20-30mm, lobes 7-11 in number, 12-24 by 2-3mm. Fruit 1-2-lobed, ellipsoid, 9-14mm long.

K7; 1-400m; I, III-V, IX, XI-XII *

Riverine forest or forest edge, wooded grassland, evergreen coastal bushland.

Mtunda ofu/Mruana (DIG).

NOTE: Battiscombe K261 has "altitude 2300 feet, Tana River" which would be in Embu district. This seems improbable. The specimens cited in UKWF from near Kisumu are not this species.

6. *Jasminum pauciflorum* Benth.

Climber, 4.5-6m. Leaves opposite, simple, ovate, base rounded or subcordate, apex shortly acuminate, 3-8 by 1.5-4.5cm, sparsely pilose; domatia present, pubescent. Flowers in terminal or subterminal cymes, solitary or several together; flowers white, pink outside, tube 18-26mm, lobes 6-8 in number, 10-20 by 1-2mm. Fruit lobes subglobose, about 7mm.

K5, twice collected in Kakamega forest; about 1650m; VI *

7. *Jasminum punctulatum* Chiov.

(*J. grahamii* Turrill)

A climber with spirally arranged simple leaves and white flowers; corolla tube 12-15mm long, -lobes 7-8mm long.

K17; 1-450m; IX*

Dry habitats at low altitude.

8. *Jasminum schimperi* Vatke

(*J. eminii* Gilg)

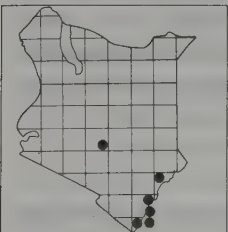
Climber 1-3m. Leaves (sub) opposite, simple, ovate, base cuneate or rounded, apex acute, obtuse, rounded or retuse, 1.5-5.5 by 1-3.5cm, pubescent or glabrous; domatia present in nerve-axils. Flowers in dense (sub) terminal (rarely lateral) inflorescences on small branchlets, solitary or several together; flowers white, pink outside, tube 12-25mm, lobes 6-8 in number, 7-17 by 3-5mm. Fruit lobes subglobose, about 9mm (only 1 fruit seen).

K14567; (300) 1400-1800m; I, III, V-VI, IX-XII

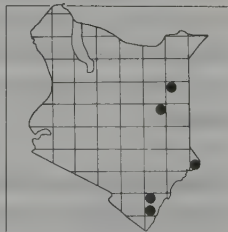
Evergreen (secondary) clump bushland or evergreen thickets, often on rocky hillslopes.

Oseke (LUO), Orgimasarge (MAA), Loenieni (SAM).

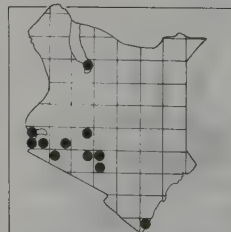
Note: I have not seen the specimens from Mombasa and Bura cited by Turrill in FTEA as "variants with smaller leaves"



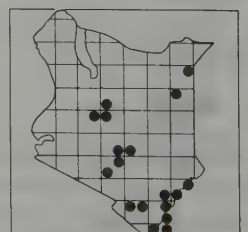
Jasminum meyeri-johannis



Jasminum punctulatum



Jasminum schimperi



Jasminum streptopus

9. *Jasminum stenolobum* Rolfe.*(J. tomentosum* Knobl.)

Although Turrill in FTEA and Kupicha in FZ state that this occurs in coastal Kenya, in *Brachystegia* woodland, I have seen no specimens, unless Battiscombe K115, "Coastal districts" is this species. The type of *J. tomentosum* (Hildebrandt 1941) was collected near Mombasa.

10. *Jasminum streptopus* E. Meyer*(J. parvifolium* Knobl.)

Shrub or climber, 0.9-3? m. Leaves (sub) opposite, simple, ovate or elliptic, base cuneate or rounded, apex rounded, acute or acuminate, 0.9-5.5 by 0.5-3cm, glabrous or pubescent; domatia present in nerve-axils. Flowers few in terminal cymes on short branchlets; flowers creamy white, often pink outside; tube 12-26mm, lobes 6-9 in number, 10-20 by 1-2.5mm. Fruit black, lobes subglobose, 5-8mm across.

K147; 1-1500m; I, IV-VII, IX-XII

Open (*Acacia-Commiphora*) bushland, most often on rocky soil; on the coast often in (*Brachystegia*) woodland.

Mtunda ofu (SWA), Chibugu (DIG), Mkwakwa (GIR), Mukondu (KAM).

Note: Species A of UKWF turned out to be a cultivated species, *J. humile*.

3. OLEA

Leaves opposite, simple. Flowers in panicle cymes, axillary or terminal, small, 4-merous; tube very short, lobes valvate; stamens 2. Fruit a drupe with hard endocarp, usually 1-seeded.

1. Leaves golden- or silvery-scaly below

2. *O. europaea*

- * Leaves green below

2

2. Flowers in (sub) terminal inflorescences; fruit 12-18mm long (inland)

1. *O. capensis*

- * Flowers in lateral and terminal inflorescences; fruit up to 10mm long (coastal)

3. *O. woodiana***1. *Olea capensis* L.**

[*O. hochstetteri* Bak., *O. schliebenii* Knobl, *O. welwitschii* (Knobl.) Gilg & Schellenb.]

Tree, 3-24(40)m, evergreen, occasionally buttressed; bark pale grey, rough. Leaves shiny above, elliptic or slightly ovate, base cuneate, apex acute, acuminate or

rarely rounded, often apiculate, 5-14 (20) by 2-6cm, with a few scattered scales on both surfaces. Flowers many, in (sub) terminal panicle cymes, as long as, or longer than subtending leaf; flowers white, cream or yellow, about 3mm long. Fruit purple, ellipsoid with pointed apex, 12-18mm long.

K123456; 1150-2550m; I-III, V, VII-IX, XI-XII.

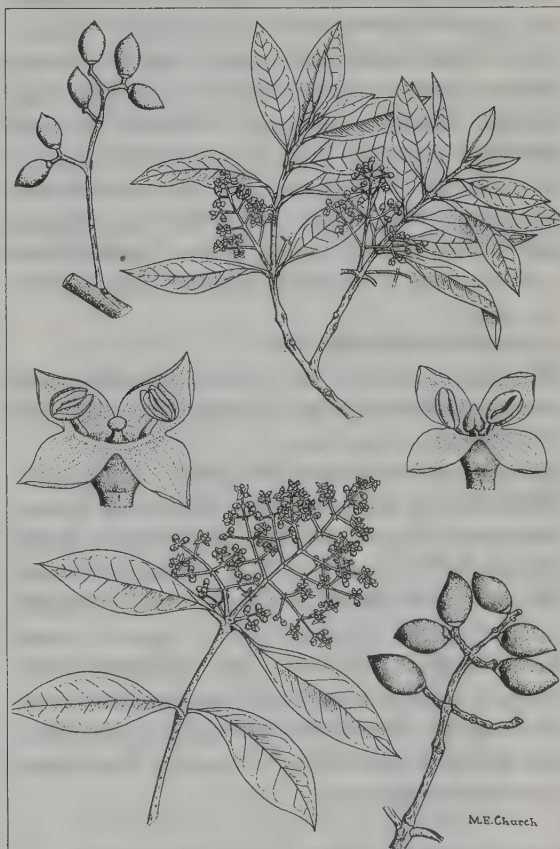
1. Petiole 10-15 mm long; leaf 2-2.5 x as long as wide, obtuse to acute at the apex

-ssp. *hochstetteri* (Baker) Friis & P.S. Green

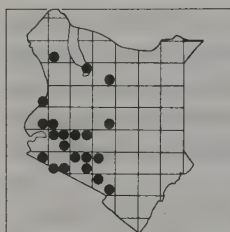
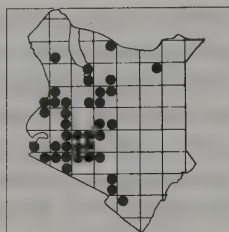
- * Petiole 17-40 mm long; leaf 3-4 x as long as wide, long-acuminate at the apex

-ssp. *welwitschii* (Knobl.) Friis & P.S. Green

Wet and dry upland evergreen forest (remnants, edges). East African Olive, Elgon Olive, Loliondo (STAND), Bumondet, Loliondet, Kiptakeriondu (ELG), Mutharage, Mutharagi (TRADE, KIK, MER), Muthukuyu, Omutukuyu (LUH), Ol-loliondo (MAA), Muthat, Musat (MAR), Muukuru, Muriuntui (MER), Mur-



Olea europaea (above) *Olea capensis* (below)

*Olea capensis**Olea europaea*

guiywet (NAN), Masaieta (NDO), Lolio-ontoi (SAM), Msaita (KIP), Mosaita, Mosotik (OKI), Eikwangat (TUR). Wood tough, strong, shock-resistant, perishable in the ground, used for building and construction work. A first-class turning wood. Fruit edible, much liked by hornbills.

2. *Olea europaea* L. ssp. *africana* (Mill.) P. Green [*O. africana* Mill., *O. chrysophylla* Lam., *O. kilimandscharica* Knobl.]

Evergreen shrub or tree 3-24m, bole often gnarled; bark grey or dark brown, longitudinally fissured. Leaves glossy dark green above, dull or metallic golden or silvery beneath, leathery, (narrowly) elliptic, base cuneate, apex acute or obtuse and often apiculate, 2-9 by 0.5-3cm, glabrous above, densely scaly beneath. Flowers many, in terminal and lateral paniculate cymes, usually shorter than the subtending leaf; flowers white or creamy yellow, scented, about 2.5-3mm long. Fruit purple or black, ellipsoid, 0.5-1cm long.

K1234567; 950-2400m; I-X

Dry upland evergreen forest (edges, remnants) often associated with *Juniperus*; may be co-dominant; also in woodland on lava flows.

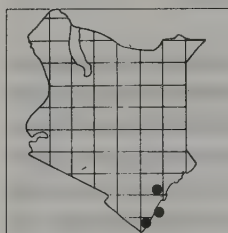
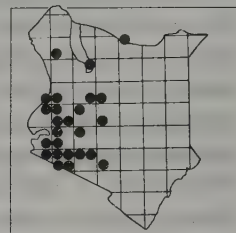
Brown or wild olive (STAND), Ejass (BOR), Korosiondet (ELG), Ejerssa (GAB), Molialundi (KAM), Molialundi (KAM), Mutheru, Muthamayu (KIK), Emitiot (KIP), Kango (LUO), Ol-orien/Ol-oirien (MAA), Yernit (MAR), Muthatha (MER), Jiemdet, Yemdid (NDO), Olerenit (OKI), Ilnyirei, Lorien (SAM), Emdit (TUG, NAN), Ethelei, Euriepei (TUR). Timber is used for building and furniture; also excellent firewood. Wanderobo and Kipsigis use a root or bark decoction as a remedy for malaria. Fruit edible, much liked by pigeons.

3. *Olea woodiana* Knobl.

Srhub or tree 5-10m; bark smooth, pale grey. Leaves

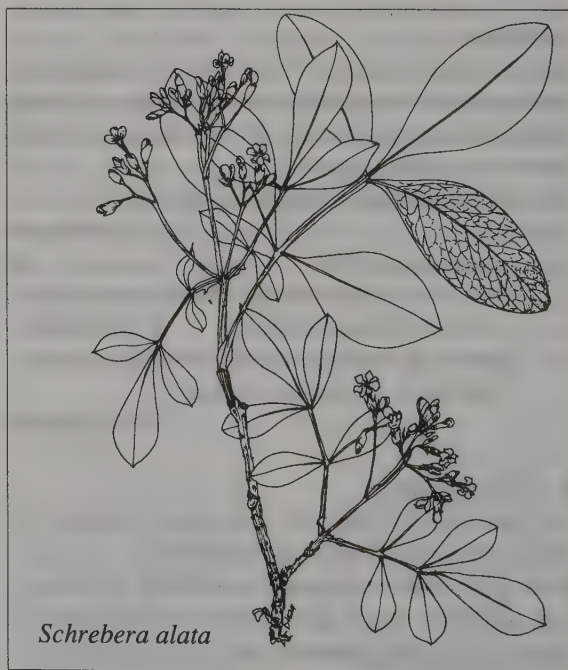
shiny above, elliptic, base cuneate, apex obtuse to short-acuminate, 4-9 by 1-4cm, with scattered scales below. Flowers many, in loose axillary or terminal panicular cymes about as long as the subtending leaf; flowers white or cream, 2-3mm long. Fruit purple-black, ovoid and apiculate at the apex, to 10mm long. K7; 1-450m; I-II, IV, XII *

Coastal forest (edge) or coastal evergreen bushland near the sea.

*Olea woodiana**Schrebera alata*

4. SCHREBERA

Leaves opposite. Inflorescences cymose. Corolla with tube and 5-7 lobes, each with a patch of hairs at base. Fruit a woody capsule, splitting in two. Seeds with a long wing.

*Schrebera alata*

Schrebera alata (Hochst.) Welw.

Tree 4-24m; trunk slightly fluted; bark pale grey, smooth or longitudinally fissured. Leaves imparipinnate with 5 leaflets; rachis more or less winged, petiole slightly winged and auriculate at base; leaflets elliptic or obovate, base cuneate, apex rounded to acuminate, 3-14 by 1.5-6cm, glabrous or sparsely pilose. Flowers in terminal cymes 4-9cm long; flowers white or cream with a dark red or purple centre, tube 8-12mm, lobes 3-7mm long. Fruit brown, obovoid, woody, 2-3.5cm long. Seeds winged, 8 per fruit.

K123456; 1500-2400m; I-II, IV-VIII (II)

Dry forest (edges, remnants), often associated with *Juniperus*, *Olea*, *Teclea*, *Croton*; also in evergreen (secondary) bushland; less often in scattered tree grassland.

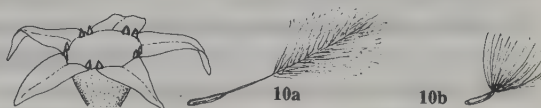
Kakaruat (ELG), Mutoma (KIK), Lamaiyat, Kabigiriet (KIP), Ochol (KIS, LUO), Ol-embenek-uni (MAA), Kakaawet (NAN, TUG) Chetoye (PKT), Msegembe (TAI). Maasai and Kipsigs chew bark or twigs for toothache; chewed leaves are used to anaesthetize cut ears. The timber is hard and heavy, and used for housebuilding and furniture. An excellent firewood.

230. APOCYNACEAE

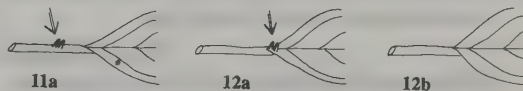
Latex present, white. Leaves simple, usually opposite, but also verticillate, rarely alternate, rarely stipulate. Inflorescence cymose. Flowers regular, with a tube and lobes, 5-merous. Fruit consisting of 2 mericarps, either fleshy and indehiscent, or woody (follicles) and dehiscent.

1. Leaves alternate, or in bunches set close together; plant succulent **2. *Adenium***
- * Leaves opposite or verticillate; plant not succulent **2**
2. Leaves verticillate in 3,4,5, or 6 **3**
- * Leaves opposite **4**
3. Inflorescence axillary; leaves up to 12 by 6cm **15. *Pleiocarpa***
- * Inflorescence terminal; leaves often much larger **16. *Rauvolfia***
4. Plants spiny **6. *Carissa***
- * Plants unarmed **5**
5. Lianas or climbers **6**
- * Shrubs or trees **13**
6. Tendrils present at forks of branches; corolla lobes overlapping to the left; fruit globose **7**

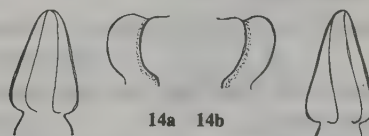
- * Tendrils absent; corolla lobes overlapping to right; fruit oblong **10**
7. Inflorescence an elongate terminal panicle **8**
- * Inflorescence short and clustered, terminal or axillary **9**
8. Leafbase subcordate; ovary and fruit glabrous **8. *Dictyophleba***
- * Leafbase rounded or subcordate; ovary and fruit pubescent **4. *Ancylobotrys***
9. Bark rough or fluted; anthers less than 1mm long; fruit green **12. *Landolphia***
- * Bark smooth; anthers over 2mm long; fruit yellow or orange **17. *Saba***
10. Corolla with paired corona-lobes; seed with long stalked hair plume **19. *Strophanthus***



- * Corolla either with single corona lobes or without corona; seed with hair plume, but this not stalked **11**
11. Leaf petiole with glands halfway; corolla tube 2-4mm long **5. *Baissea***



- * Leaf petiole without glands, or with glands near apex **12**
12. Petiole with glands near apex, corolla tube about 3mm **14. *Oncinotis***
- * Petiole without glands; corolla tube over 7mm long **3. *Alafia***
13. Flowers present **14**
- * Fruit present **25**
14. Corolla lobes overlapping to the left **15**



- * Corolla lobes overlapping to the right **21**
15. Corolla tube (and often the lobes as well) twisted **16**

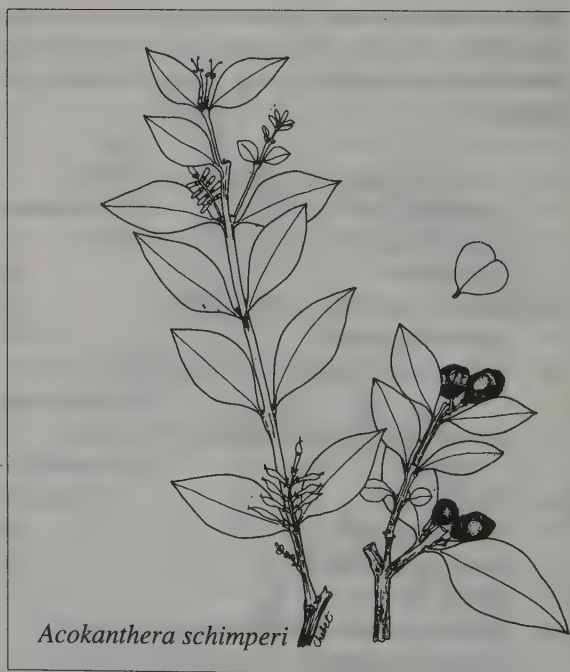
- * Corolla tube and lobes straight 17
16. Sepals united for two-thirds or more 21. *Voacanga*
- * Sepals free or nearly so 20. *Tabernaemontana*
17. Corolla tube longer than corolla lobes 18
- * Corolla tube shorter than corolla lobes 22. *Wrightia*
18. Corolla lobes almost as wide as long; inflorescence axillary 19
- * Corolla lobes much longer than wide; inflorescence terminal 20
19. Leaf apex with hard, almost spiny mucro 1. *Acokanthera*
- * Leaf apex blunt 15. *Pleiocarpa*
20. Inflorescence at branching point of twigs; leaves 12-25cm long 7. *Carvalhoa*
- * Inflorescence terminal; leaves up to 15cm long 11. *Hunteria*
21. Corolla lobes with 4-8cm long tails; dry bushland 19. *Strophanthus*
- * Corolla lobes not tailed 22
22. Petiole with glands halfway 10. *Holarrhena*
- * Petiole without projections 23
23. Leaves with domatia in vein-axils 9. *Funtumia*
- * Leaves without domatia 24
24. Inflorescence in branches' forks; corolla tube 4-6mm long, lobes 3-4mm long 18. *Schizozygia*
- * Inflorescence terminal or axillary; at least the corolla lobes longer *Mascarenhasia*
25. Fruit more than 6 times as long as wide 26
- * Fruit globose or ellipsoid 35
26. Fruit orange; seeds with pulpy aril 7. *Carvalhoa*
- * Fruit grey or brown; seeds with hairtuft 27
27. Fruit mericarps divaricate, more or less erect, woody 28
- * Fruit mericarps parallel, pendent, not woody 30
28. Trees of moist forest or woodland; leaves over 15mm wide 29
- * Shrub of dry bushland; leaves 3-14mm wide 19. *Strophanthus*
29. Leaves with hairy domatia; seed with stalked hair-coma 9. *Funtumia*
- * Leaves without domatia; seed with sessile hair-coma 13. *Mascarenhasia*
30. Leaves 0.5-2cm wide, with rounded apex 22. *Wrightia*
- * Leaves 3-7.5cm wide, with acute or acuminate apex 10. *Holarrhena*
31. Fruit orange when ripe, up to 28mm across 32
- * Fruit green (may be spotted white), when ripe over 30mm across 35
32. Leaf with a hard, spiny mucro at the apex 1. *Acokanthera*
- * Leaf without a spiny apex 33
33. Inflorescence terminal, or in forks of branches 34
- * Inflorescence axillary 15. *Pleiocarpa*
34. Fruit carpels globose 11. *Hunteria*
- * Fruit carpels obovate, laterally flattened 18. *Schizozygia*
35. (Almost indistinguishable)
Fruit carpels green, sometimes spotted with white or yellow 20. *Tabernaemontana*
- * Fruit carpels pale/dark green spotted 21. *Voacanga*

1. ACOKANTHERA

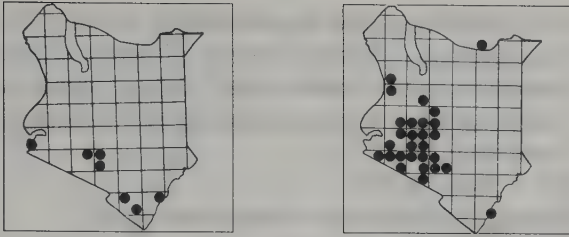
Inflorescence axillary, dense. Corolla lobes overlapping to the left, much shorter than the tube. Fruit a berry with 1-2 seeds.

1. Corolla tube 11-19mm long, secondary veins of leaf clear and raised above

1. *A. oppositifolia*



Acokanthera schimperi



Acokanthera oppositifolia *Acokanthera schimperi*

* Corolla tube 6-10mm long, secondary veins faint, not raised
2. *A. schimperi*

1. *Acokanthera oppositifolia* (Lam.) Codd

(*A. longiflora* Stapf)

Shrub or tree 1-7m, evergreen; bark rough, deeply fissured. Leaves shiny above, elliptic or slightly obovate, base cuneate or rounded, apex acute or obtuse with a hard spiny mucro, 5-15 by 3-8.5cm, glabrous. Flowers white with a pink tube, in dense cymes; corolla tube 11-19mm, lobes 2-5mm long. Fruit red or purple, fleshy, ellipsoid, 13-30 by 8-22mm.

K457; 1450-2100m; I-III, VIII-XI *

Dry forest (margins), riverine forest or woodland.

Muva-wa-ngo, Mukweu (KAM), Kiururu (KIK), Olmorijoi (MAA), Mururu (MER), Rumbara (TAV), Musungusungu, Usungu (TAI). The whole tree, (except possibly the ripe fruits) is poisonous; bark, root and leaves are used in the preparation of arrow poison.

2. *Acokanthera schimperi* (A.DC.) Schweinf.

(*A. friesiorum* Markgr.)

Shrub or tree 2-12m; crown dense, rounded; bark corky, deeply fissured. Leaves shiny, elliptic or slightly (ob-)ovate, base cuneate or rounded, apex rounded or acute with a hard mucro, 2.5-8.5 by 1.5-4.5cm, glabrous. Flowers white with pink tube, in dense cymes; corolla tube 6-10mm, lobes 2-3.5mm long. Fruit red-purple, often with bloom, ellipsoid, 11-18mm long.

K1234567; (1-) 1200-2300m: I, III-IV, VI-X, XII (VII-IX)

Dry forest (margins), wooded grassland, rocky bushland, especially semi-evergreen bushland.

Kararu (BOR), K'arraru (GAB), Chungu (GIR), Kivai, Muvai (KAM), Murichu (KIK), Ol-morijoi (MAA), Mururu (MER), Kelyo, Keliot (KIP, NAN, LUM), Kalyan (PKT), Lmorijoi (SAM), Marid (SOM) Gelwon, Kelwon (TUG). Very poisonous, only the ripe fruit being edible (I'd hate to try it!). Roots, bark, twigs

and leaves serve in the preparation of arrow poison. On the coast the tree has been introduced by the Giriama.

2. ADENIUM

Leaves alternate. Corolla lobes overlapping to the right, with a small corona. Fruit woody. Seed with hairy coma.

***Adenium obesum* (Forssk.) Roem. & Schult.**

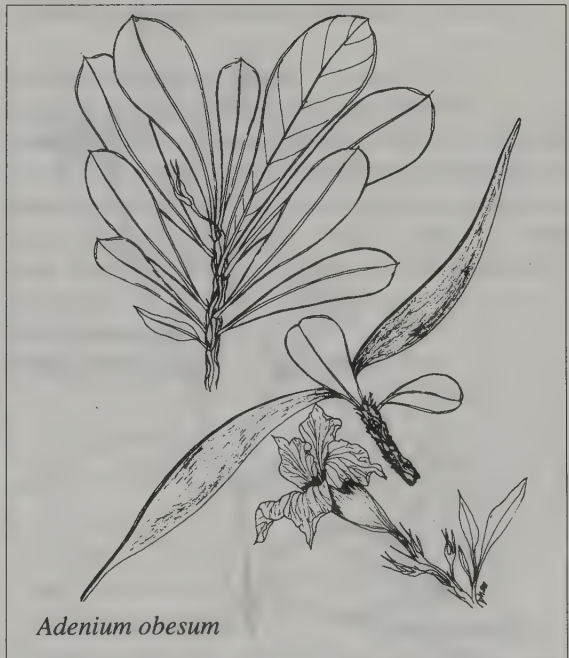
(incl. *A. somalense* Balf.f.)

Succulent shrub or tree 0.3-6m; bark grey, smooth; especially the lower part of the stem may be bulbous. Leaves (narrowly) obovate or elliptic, base cuneate or attenuate, apex rounded and mucronate or emarginate, 5-22 and 0.5-6cm, glabrous or pubescent. Flowers white, pink or reddish, in dense terminal cymes; corolla tube 25-50mm, lobes 15-30mm long. Fruit grey or greybrown, tapering at both ends, 16-24 by 1-1.5cm.

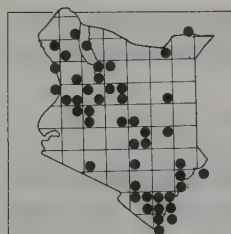
K123467; 1-1500m; I-XII (I, VIII)

In dry bushland, especially in rocky sites; on the coast also in woodland.

Desert Rose (STAND), Mwandiga (SWA, DUR), Obbe, Halubu (BOR), Obbe (GAB), Tulata (ILW), Oleteti (MAA), Muk-fadjie (ORM), Koliya, Kaluny



Adenium obesum

*Adenium obesum*

(PKM), Lpirintai (SAM), Uba, Feyid, Marud (SOM), Igandaiyu (TAI), Egales (TUR). The whole plant is reputedly poisonous, especially the roots, which are employed in making fish poison and arrow poison; a bark infusion is used to get rid of ticks and lice on camels and cows.

3. ALAFIA

Inflorescences terminal. Corolla lobes overlapping to the right. Fruit of 2 thin-walled mericarps. Seeds with hairy coma.

1. Leaf apex long-acuminate; corolla tube 7.5-9mm long **1. *A. caudata***

- * Leaf apex shortly and bluntly acuminate; corolla tube 4.5-6.5mm long **2. *A. microstylis***

1. *Alafia caudata* Stapf ssp. *latiloba* Kupicha

Liana to 25m; bark greybrown, smooth. Leaves ellip-

tic, base cuneate, apex long-acuminate, 4.5-8 by 1.8-4cm, glabrous. Flowers white or yellowish, in lax umbellate cymes; corolla tube 7.5-9mm, lobes 6-13mm long. Fruit grey, pendulous, the mericarps up to 36cm long.

K7; 1-500m; II, IV*

(Riverine) forest on the extreme south coast. Wakama (ILW).

2. *Alafia microstylis* K.Schum.

Liana at least to 8m; bark smooth, grey. Leaves elliptic or slightly obovate, base cuneate, apex shortly and bluntly acuminate, 4.5-7.5 by 1.5-3cm, glabrous. Flowers white with red markings, in lax cymes to 2cm; corolla tube 4.5-6.5mm, lobes 9-13mm long. Fruit 25-40cm by about 1cm, pendulous.

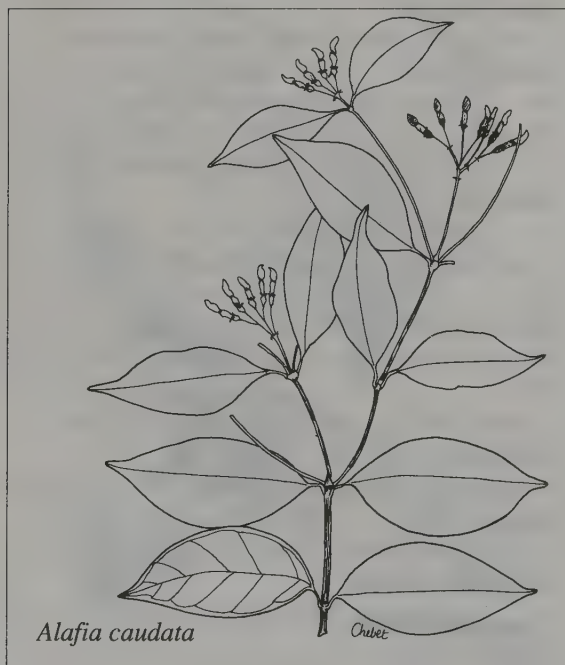
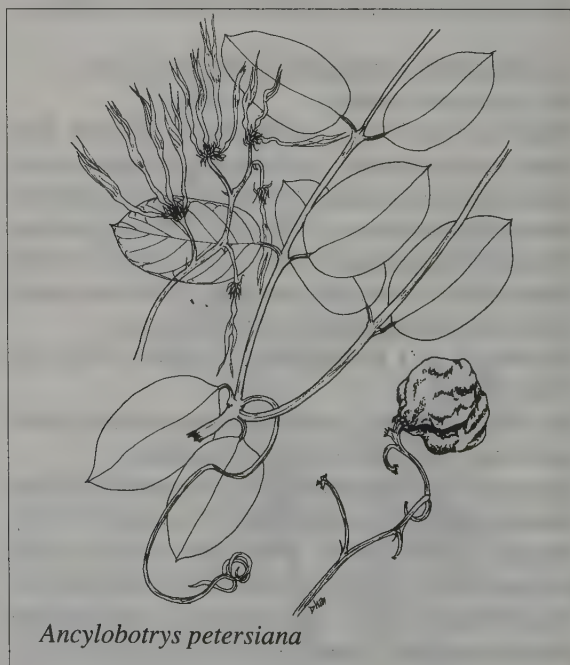
K7; 1-250m; III*

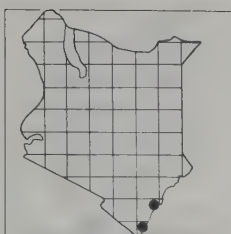
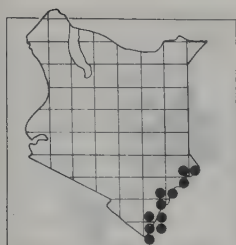
Riverine or forest: Tana R. Primate Reserve, Mrima.

4. ANCYLOBOTRYS

Lianes climbing with tendrils. Inflorescence a long terminal panicle, with sensitive branches, these later becoming woody climbing hooks. Corolla lobes overlapping to the left, with a hairy fringe. Fruit a berry, many-seeded

1. Leaf apex rounded or acute; secondary veins 5-

*Alafia caudata**Ancylobotrys petersiana*



Ancylobotrys petersiana

Ancylobotrys tayloris

20mm apart

* Leaf apex acuminate; secondary veins 1-4mm apart

1. *A. petersiana*

2. *A. tayloris*

1. *Ancylobotrys petersiana* (Kl.) Pierre

Liana 1.5-12m. Leaves elliptic or slightly obovate, base cuneate or rounded, apex rounded or acute, 5-12 by 2.5-6cm, sparsely pubescent. Flowers white or yellow, often with a pink tube, in long panicles; corolla tube 8-12mm, lobes 12-25mm long. Fruit yellow or orange, globose, 3-5cm across, velutinous.

K7; 1-400m; III-VI, VIII-XII

Coastal evergreen bushland, dry forest (margins), thickets.

Mbohoya (SWA, DIG), Mtongazi (GIR). The fruit is edible.

2. *Ancylobotrys tayloris* (Stapf) Pichon

Liana to 20m. Leaves as in *A. petersiana*, but with deflexed acuminate apex. Corolla tube 7-13mm, lobes 12-20mm long. Fruit as in *A. petersiana*.

K7; 1-300m; I, VIII, XI-XII *

Dry coastal forest.

Mbohoya (SWA, DIG), Mtongazi (GIR). The fruit is edible.

5. BAISSEA

Liana without tendrils. Leaves with glands on the petiole, and domatia in the vein axils. Inflorescences axillary, sometimes also terminal. Corolla lobes overlapping to the right. Fruit with pendulous, thin-walled follicles. Seeds with hairy coma.

1. Western species; inflorescence lax

1. *B. multiflora*

* Coastal species; inflorescence dense

2. *B. myrtifolia*

1. *Baissea multiflora* A.DC.

Large climber. Leaves slightly obovate, base rounded,



Baissea myrtifolia

apex acuminate, 6-11 by 1.5-4cm, pilose to rusty-tomentose on the midrib. Flowers white or yellow, in lax inflorescences; corolla tube 3.5-4mm, lobes 5-8mm long. Fruit up to 45cm long.

K5; 1550-1650m; XI *

Collected twice in Kakamega Forest.

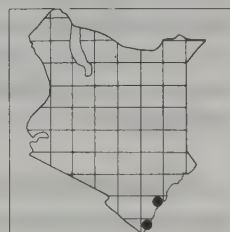
2. *Baissea myrtifolia* (Benth.) Pichon

[*Zygodia melanocephala* (K.Schum.) Stapf]

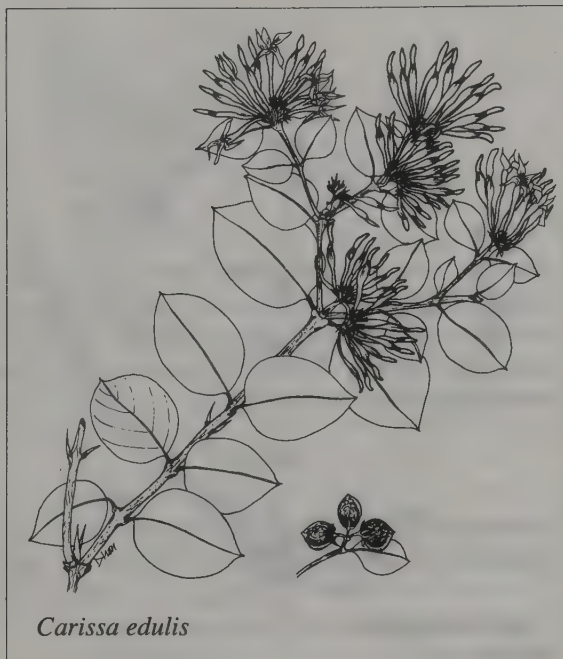
Climber to 12m. Leaves as in *B. multiflora*, 2-8.5 by 0.8-4cm, pubescent to nearly glabrous, with domatia. Flowers yellow with pink throat, fading to orange, in dense groups; corolla tube 2-3mm, lobes 1-2.5mm long. Fruit up to 44cm long and 0.5cm wide, brown-pubescent.

K7; 1-500m, IV, VI, X-XII *

Dry forest, thicket, or coastal bush.



Baissea myrtifolia



6. CARISSA

Shrub, with large spines at the nodes. Inflorescence a terminal corymb or cyme. Corolla lobes overlap to left or right. Fruit a berry with 1-8 seeds.

1. Spines usually not forked; corolla lobes overlap to the right, widespread **2. *C. edulis***
- * Spines forked; corolla lobes overlap to the left; coastal **2**
2. Flower parts in 5; leaf margin entire **1. *C. bispinosa***
- * Flower parts in 4; leaf margin faintly toothed **3. *C. tetramera***

1. *Carissa bispinosa* (L.) Desf. ssp. *bispinosa*

Shrub 0.5-3m. Spines thick, once or twice forked, to 8cm long. Leaves ovate or almost round, base truncate, apex obtuse or mucronate, 1-6 by 1-3.5cm, glabrous. Flowers white (or pink outside), in rather dense cymes; corolla tube 5-9mm, lobes 3-5mm long. Fruit red to black, ovoid, 10-13mm long.

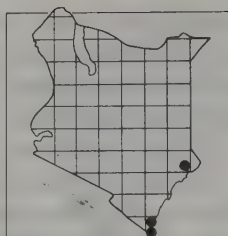
K7; 1-450m; I, VI-VII, XI*

Dry bush - or woodland.

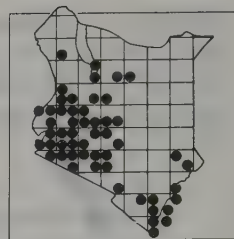
Fruit edible.

2. *Carissa edulis* (Forssk.) Vahl

Shrub, occasionally scrambling, 1-6 (-14)m; bark grey.



Carissa bispinosa



Carissa edulis

Spines simple, rarely forked, 0.5-5.5cm long. Leaves ovate, elliptic or almost round, base rounded or cuneate, apex obtuse or acute, 1.5-7 by 1.5-4cm, glabrous or pubescent. Flowers white inside, pink to red outside, in dense cymes; corolla tube 13-20mm, lobes 4-9mm long. Fruit red to black, round or ellipsoid, 6-14mm across, sometimes with a sharp apex.

K1234567; 1-2550m; I-XII

Forest edges, bushland, thicket or bushy grassland, especially in rocky places.

Mtanda-mboo (SWA), Fonkole, Dagams (BOR), Mulimuli (BON), Mulowe, Mulolwe (DUR), Dagamsa (GAB), Mokalakalo, Kaka-mchangani (ILW), Mukawa (KAM), Mukawa (KIK), Ochuoga (LUO), Olamuriaki (MAA), Legatetwo (MAR, TUG), Legetetwa, Legetetwet (NAN, KIP, TUG), Lokotetwo (PKT), Lmuria, Lmuriel (SAM), Gurura (SAN), Kirumba (TAI), Ekamuria (TUR). The fruits are edible, very tasty (e.g. when one is climbing hills), a bit astringent, and are sometimes taken against dysentery; a decoction of the roots is used as a pain killer.

Note. G. Powys believes the form with large berries is a distinct variety; this form breeds true when transplanted to a different environment.

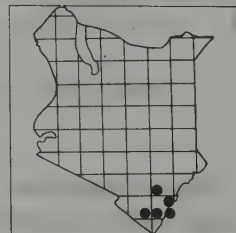
3. *Carissa tetramera* (Sacl.) Stapf

Shrub or tree 1-4.5m. Spines forked, to 8cm long. Leaves as in *C. edulis*, but with slightly crenate margin. Flowers as in *C. edulis*, fruit idem.

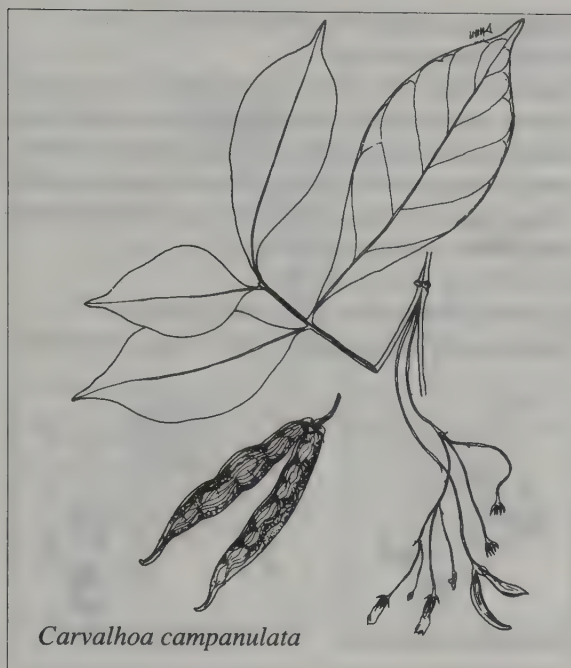
K7; 1-400m; V, VIII-X *

Bushy grassland or woodland.

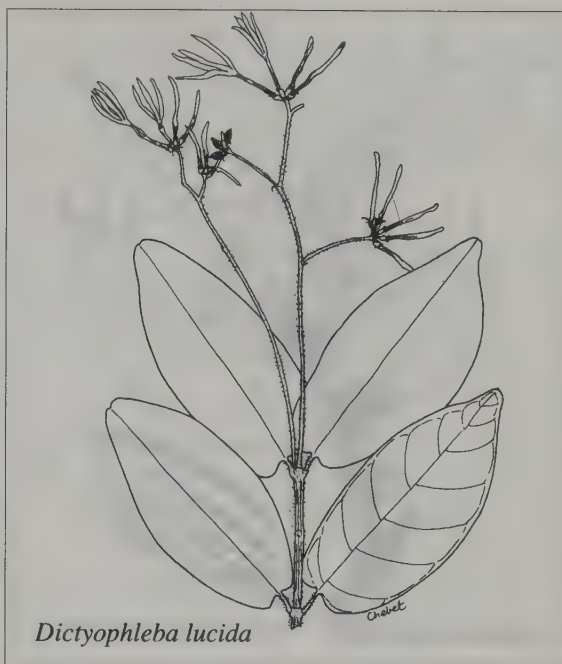
Mtanda-mboo (SWA, GIR).



Carissa tetramera



Carvalhoa campanulata



Dictyophleba lucida

7. CARVALHOA

Inflorescence in forks of branches. Corolla lobes overlap to the left. Fruit of fleshy follicles, many-seeded.

Carvalhoa campanulata K.Schum.

(*C. macrophylla* K.Schum.)

Shrub, 1-3 (5)m; bark shallowly fissured. Leaves elliptic, base cuneate or narrow and obtuse, apex acuminate, 12-25 by 3.5-8cm, glabrous (rarely pubescent). Flowers cream with a pink tube, in few-flowered corymbs to 9cm long; corolla tube 8-10mm, lobes 3-6mm long. Fruit orange, oblong with acuminate apex, 6-7.5 by 0.7-0.8cm.

K7; Shimba Hills forest at 350m; -*

8. DICTYOPHLEBA

Inflorescence terminal. Corolla lobes overlap to the left. Fruit a berry, many-seeded.

Dictyophleba lucida (K.Schum.) Pierre

Liana to 20m; tendrils present (from old inflorescences). Leaves obovate, base subcordate, apex obtuse or bluntly acuminate, 7-15 by 3.5-7.5cm, glabrous or with a hairy midrib. Flowers cream with a pink tube, in lax panicles to 17cm long; corolla tube 10-18mm,

lobes 10-17mm long. Fruit yellow or red, subglobose, 3-4.5cm.

K7; 1-400m; VI, VIII *

Forest (margins): Shimba Hills and south of Diani. Mbohya (SWA, DIG). The fruit pulp is edible.

9. FUNTUMIA

Leaves with domatia beneath. Inflorescence terminal and axillary, congested. Flowers fleshy, with lobes overlapping to the right. Fruit of 2 woody follicles; seeds with hairy coma.

Funtumia africana (Benth.) Stapf

[*F. latifolia* (Stapf) Stapf] Figure on next page
Tree, 8-27m; bark smooth, grey. Leaves ovate or elliptic, base rounded or cuneate, apex acuminate, 12-23 by 5-11cm, glabrous or nearly so. Flowers cream, in dense cymes; corolla tube 6-10mm, lobes 5-17mm long. Fruit greybrown, fusiform, with acute or acuminate apex, 9-15(30) by 1.5-2cm.

K57; 350-1600m; I, IV-V, XI-XII *

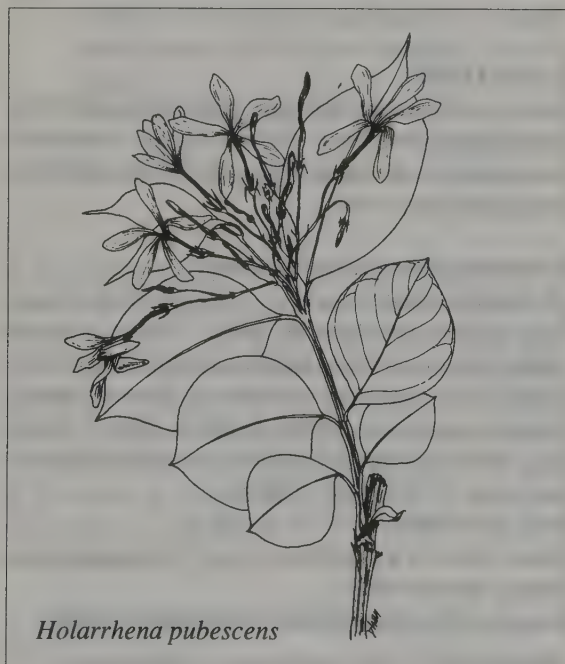
Moist forest or groundwater forest: Kakamega area, Taveta, Shimba Hills.

Bastard wild rubber (TRADE), Mutondo (LUH).



10. HOLARRHENA

Leaves (sub-)opposite. Petiole with projections near the base or halfway up. Inflorescence terminal. Corolla lobes overlap to the right. Fruit of 2 thin-walled follicles.



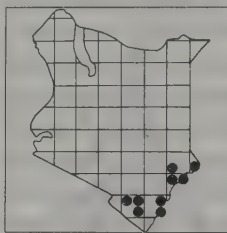
Holarrhena pubescens (Buch.-Ham.) G. Don (*H. febrifuga* Klotzsch)

Shrub or tree 1-9 (15)m; bark smooth, pale grey. Leaves ovate or elliptic, base rounded or cuneate, apex acute or acuminate, 5-22 by 3-7.5cm, glabrous (pubescent). Flowers white, in dense cymes; corolla tube 9-17mm, lobes 10-19mm long. Fruit greybrown dotted with white, 20-40 by 0.5-0.9cm.

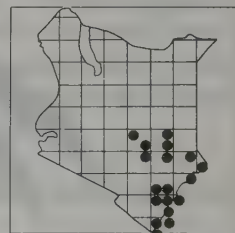
K7; 1-800m; I-IV, X-XII *

In (rocky) bushland or along forest margins.

Mtimeupe, Mwemeanguzo (SWA), Kepaho (BON).



Holarrhena pubescens



Hunteria zeylanica

11. HUNTERIA

Inflorescence terminal, corolla lobes overlap to the left. Fruit of 2 fleshy berries; berry 2-seeded.

1. Corolla tube 8-10mm long; lowland species

2. *H. zeylanica*

* Corolla tube 5-8mm long; found above 1000m

1. *H. congolana*

1. *Hunteria congolana* Pichon

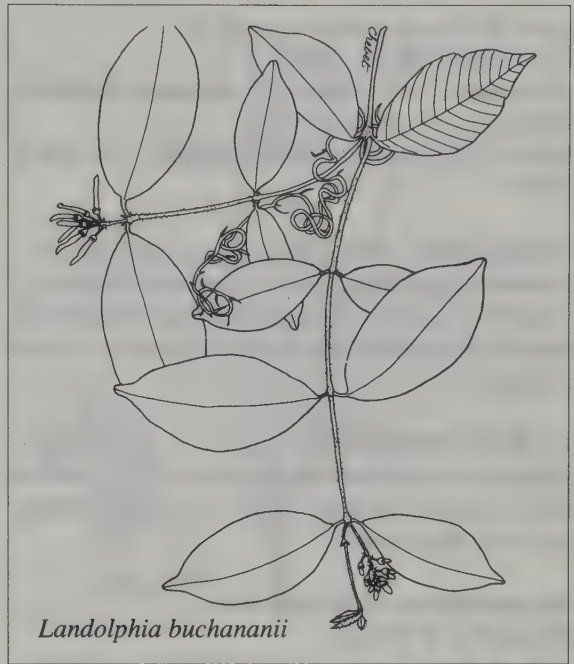
Shrub or tree. Leaves narrowly elliptic, base cuneate or attenuate, apex bluntly acuminate, 6.5-10 by 1.5-3.5cm, glabrous. Flowers white, in lax panicles to 3cm; corolla tube 5-6mm, lobes 2.5-4.5mm long. Fruit orange, each berry round, 11-28mm.

K1; 1700-2100m; IX *

Collected twice in forest on Mr. Kulal.

2. *Hunteria zeylanica* (Retz.) Gardn. var. *africana* (Schum.) Pichon

Shrub or tree 2-10 (40)m, evergreen; bark grey, smooth or slightly fissured. Leaves elliptic or slightly obovate, base cuneate, apex obtuse, acute or acuminate, 5-14.5 by 2.5-5cm, glabrous. Flowers white or cream, in lax panicles to 5cm; corolla tube 8-10mm, lobes 4-6.5mm long. Fruit yellow or orange, each berry round, 10-17mm.



K47; 1-350m; I-XII (I,XI)

Coastal bushland, woodland, dry forest or along rivers.

Mziwaziwa (SWA), Ndani (BON), Mtsembwe-wa-sika (GIR), Mudeeno (ILW), Dano (ORM), Mdeno (PKM).

12. LANDOLPHIA

Lianas with tendrils (may be absent in herbarium specimens, or even when fresh!) which are branched at the very tip. Inflorescences terminal or axillary, corolla lobes overlap to the left. Fruit a many-seeded berry with a hard rind.

1. Inland species, with glabrous or hispidulous twigs **1. *L. buchananii***
- * Coastal species, with brownish- or rusty-pubescent twigs **2**
2. Inflorescence many-flowered **2. *L. kirkii***
- * Inflorescence 5-6-flowered **3. *L. watsoniana***

1. *Landolphia buchananii* (Hall.f.) Stapf.

Climber 6-20m; stem deeply fluted, with dark brown bark. Leaves (narrowly) elliptic or slightly (ob-)ovate, base cuneate or rounded, apex bluntly acuminate, 5-12 by 1.5-5cm, glabrous or with a hairy midrib. Flowers white or yellow, in rather dense cymes (later lengthen-

ing to 25cm); corolla tube 5-8mm, lobes 7.5-9cm long. Fruit green with white spots, globose, 4-10cm.

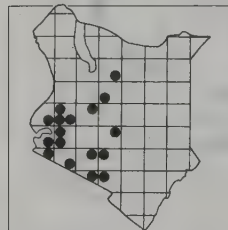
K13456; 1350-2150m; I, III, XI-XII *

(Riverine) forest.

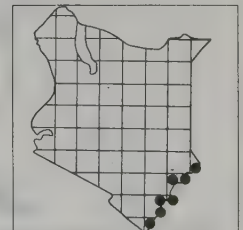
Nakamwe (EMB), Muugu (KIK), Ngingichet, Tuneiyet (KIP), Rikikini (LUO), Entiangege (MAA), Ngingichet, Ngūnyet (NAN), Seebit (SAM), Muguguwa (TUG). The fruit is said to be edible; young stems are used for rope.

2. *Landolphia kirkii* Dyer

(Shrub or) climber 1.5-6 (-30)m; bark rough, brown-grey. Tendrils to 15cm. Leaves slightly ovate or (narrowly) elliptic, base cuneate or rounded, apex bluntly acuminate, 2.5-8.5 by 1-4cm, puberulous to glabrous. Flowers white or yellow, in dense cymes; corolla tube 2.5-4mm, lobes 3-4mm long. Fruit dull



Landolphia buchananii



Landolphia kirkii

green, globose or pyriform, to 15cm.

K7; 1-500 m: III-IV, XI-XII *

(Secondary) forest (margins), secondary bushland, *Brachystegia* woodland.

Mpira (SWA), Mungo, Mtongasi (GIR). The fruit is edible.

3. *Landolphia* ? *watsoniana* (nomen subnudum)

Possibly Leeuwenberg 10792 collected to 9 km east of Ganze is this species, although the twigs are pubescent instead of glabrous (as the description by Pichon indicates).

13. MASCARENHASIA

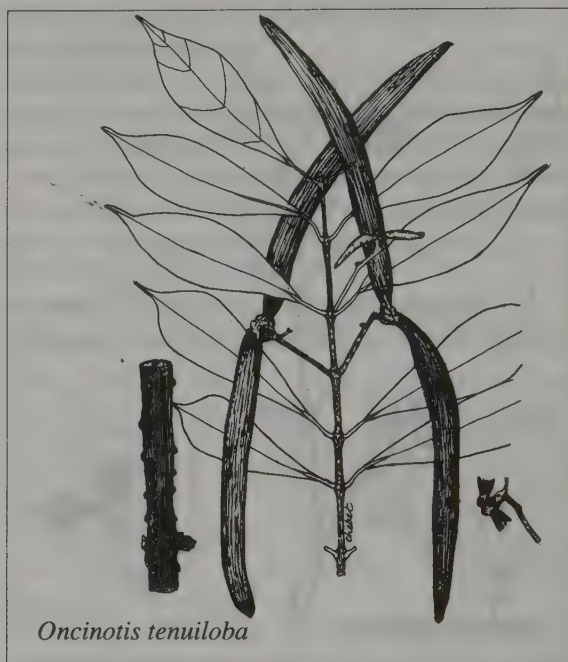
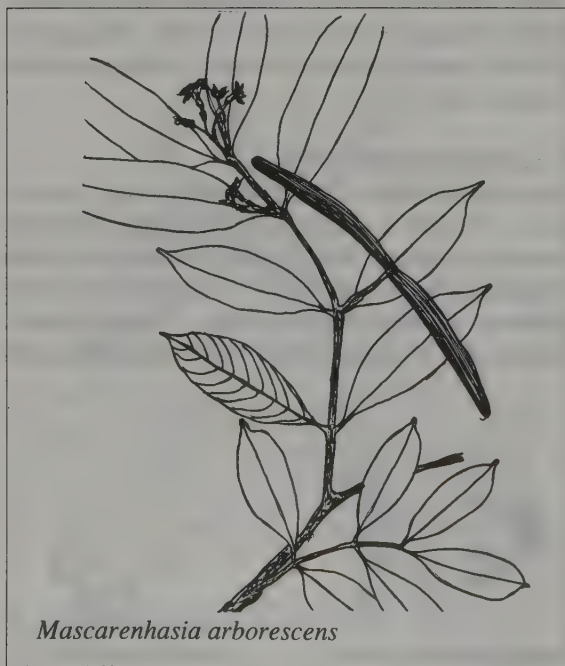
Inflorescence terminal but may seem axillary; corolla lobes overlap to the right. Fruit of 2 woody follicles; seed with hairy coma.

Mascarenhasia arborescens A.DC.

(*M. elastica* K.Schum.)

Tree (or shrub) 2-9m. Leaves elliptic, base cuneate, apex acuminate, 5-16.5 by 2-6cm, glabrous (or partly pubescent). Flowers white, in short cymes; corolla tube 8-12mm, lobes 4-7mm long. Fruit grey, somewhat furrowed, 5-17.5cm long.

K7; 1-400m; XI *



Forest on Shimba Hills, Gongoni and Buda. Mgoa (SWA).

14. ONCINOTIS

Petiole with glands near the apex. Inflorescence axillary, corolla lobes overlap to the right. Fruit of 2 follicles; seed with hairy coma.

Oncinotis tenuiloba Stapf

Climber to 10(30)m; bark thick, corky. Leaves obovate, base cuneate, apex acuminate, 6-13 by 2-5cm, glabrous except for the domatia. Flowers greenish, in axillary many-flowered panicles. Corolla tube about 3mm, lobes 3-5mm long. Fruit brown-pubescent, 15-25 by 1-13cm.

K37; 1-1500m; III *

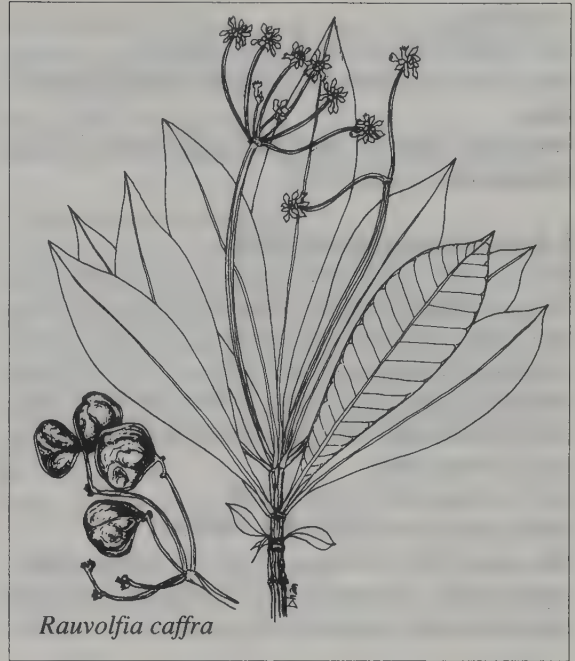
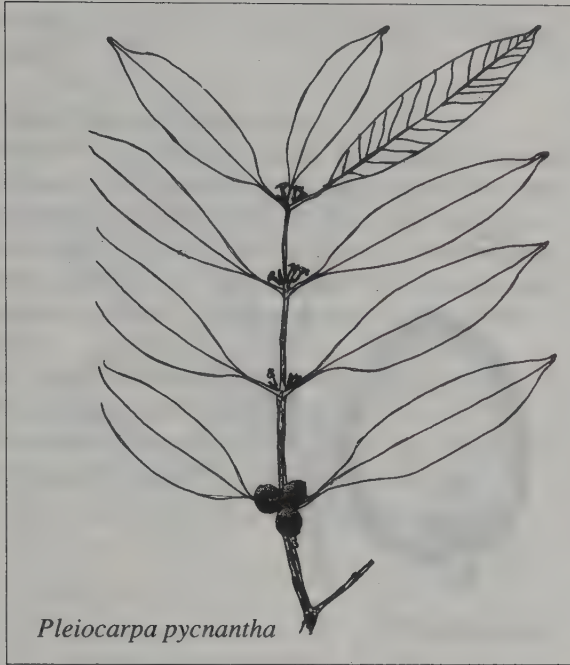
(Riverine) forest margins; Kaimosi, Wundanyi, Kaya Jogo and Tana River Primate Reserve.

15. PLEIOCARPA

Leaves opposite, or in whorls or 3-5. Inflorescence axillary. Corolla lobes overlap to the left. Fruit a pair or berries, each 1-2 seeded.

Pleiocarpa pycnantha (K.Schum.) Stapf

Tree 3-15m; bark smooth, pale grey. Leaves elliptic,



base attenuate, apex obtuse or bluntly acuminate, margin wavy, 7-12 by 2-5.5cm, glabrous. Flowers white, in dense groups; corolla tube 5.5-7mm, lobes 2-3mm long. Fruit orange, pear-shaped, 11-14mm long. K47; 1-1500m; V-VI *

Forest: Nyambeni Hills area and Mrima area. Muthautha (MER).

16. RAUWOLFIA

Leaves in whorls of 3-8. Inflorescence terminal, umbellate. Corolla lobes overlap to the left. Fruit a 1-seeded drupe.

1. Inflorescence 2-5cm long; leaf apex with an acumen 5-15mm long 2. *R. mannii*

- * Inflorescence 5-15cm long; leaf acumen less than 5mm long 2

2. Corolla tube 3-4mm long; fruit 10-16mm long 1. *R. caffra*

- * Corolla tube 7-8mm long; fruit 6-9mm long 2. *R. mombasiana*

1. *Rauwolfia caffra* Sond.

Shrub or tree 2-30m; bark smooth or corrugated in small squares, grey or brown. Leaves shiny, narrowly obovate or elliptic, base cuneate, apex acute or short-acuminate, 11-30(60) by 3-12(17)cm, glabrous. Flow-

ers (greenish) white, in panicles to 16cm long; corolla tube 3-4mm, lobes 0.6-1.6mm long. Fruit dark red or black, subglobose or 2-lobed, 10-16mm long.

K3456; 650-1900m; VI, IX-XII *

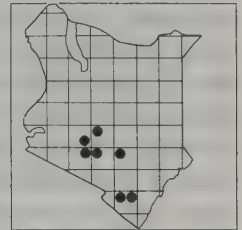
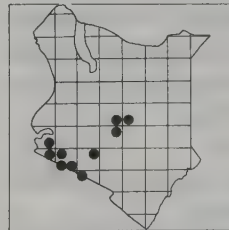
Riverine forest or thicket, less often in forest away from water.

Mwimbe (EMB), Mutongo, Mwerere (KIK), Reren-det (KIP), Omumure (KIS), Olemudongo (MAA), Mutu (MER), Mbariabari (TAV).

2. *Rauwolfia mannii* Stapf

(*R. rosea* K.Schum.)

Shrub or tree 1-6m. Leaves elliptic or slightly obovate, base cuneate, apex long-acuminate, 5-20 by 2-7cm, glabrous. Flowers pinkish white, in 2-5cm long umbels; corolla tube 4-7mm, lobes 1.5-2mm long. Fruit red or purple-black, elliptic or 2-lobed with acute apex, 7-



14mm long.

K47; 1050-2400 m; I-III, VII-IX, XI (II)

Moist forest, especially at margins and in disturbed sites.

Musu-ndui (KAM), Muninerya, Mutongo (KIK), Mamapemba, msasa (TAI).

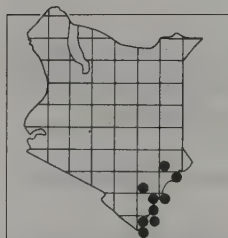
3. *Rauvolfia mombasiana* Stapf

Shrub or tree 1.5-7m, evergreen. Leaves (narrowly) elliptic or slightly obovate, base cuneate or attenuate, apex acute or shortly acuminate, 7-24 by 2-7cm, glabrous. Flowers (greenish) white, in 8-22cm long umbellate cymes; corolla tube 7-8mm, lobes 1-1.5mm long. Fruit orange (reddish), ellipsoid or bilobed, apex acute, 6-9mm long.

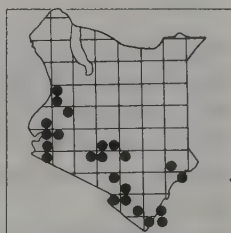
K7; 1-450 m; I-II, V, VII, X-XII

Forest (edge), riverine thicket, bushland.

Mti-sumu (SWA), Kihere (BON), Mumasia (GIR), Lupiki (ILW). The bark is used in poisoning rats, and a root decoction is reported to be a remedy for malaria.



Rauvolfia mombasiana



Saba comorensis

17. SABA

Lianas with tendrils. Inflorescence terminal, corolla lobes overlap to the left. Fruit a many-seeded berry.

Saba comorensis (Bojer) Pichon

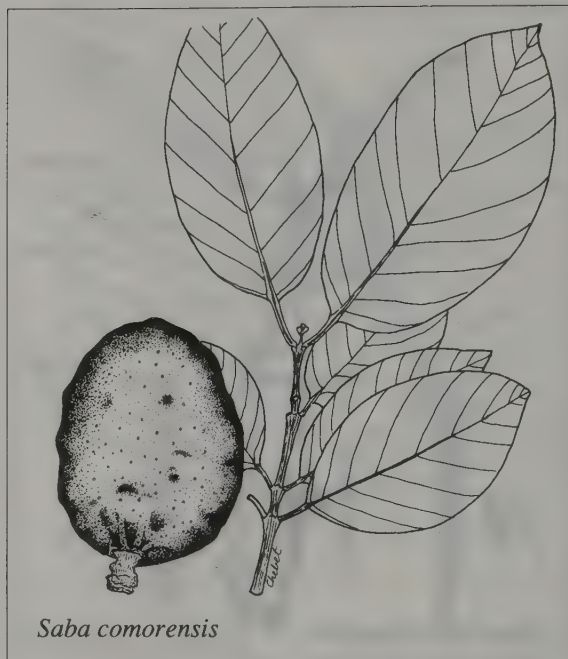
[*Saba florida* (Benth.) Bullock]

Liana to (at least) 20m long; bark smooth, brown; tendrils to 12cm (more?) long. Leaves ovate or elliptic, base rounded or subcordate (cuneate), apex obtuse or rounded, 7-16 by 4-8.5cm, glabrous. Flowers white with a yellow throat, in rather dense panicles; corolla tube 18-25mm, lobes 20-38mm long. Fruit yellow or orange, subglobose, 2.5-6cm across.

K234567; 1-1800m; I-III, VII-XII

Riverine forest; especially in the coast also in forest edges; less often in rocky woodland.

Loguo (ILW), Ivungu (TAV). The fruit is edible; the



Saba comorensis

stems are used in hut-building.

18. SCHIZOZYGIA

Inflorescences 2 per fork, corymbose. Corolla lobes

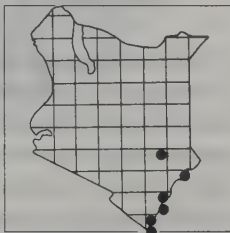
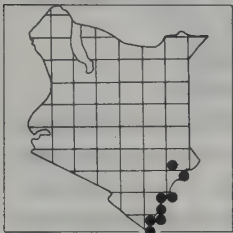


Schizozygia coffaeoides

overlap to the right. Fruit of 2 ellipsoid leathery carpels.

Schizozygia coffaeoides Baill.

Shrub 1-4m, evergreen; bark grey-green. Leaves obovate, base cuneate or narrow and obtuse, apex short-acuminate, 6-21 by 2.5-10cm, glabrous. Flowers white or pale yellow, in dense corymbs to 2cm long; corolla tube 4-6mm long. Fruit orange, each carpel ellipsoid, laterally flattened, 7-14 by 6-9 by 3-5mm.
 K7; 1-500m; I-II, IV-V, VII-VIII, XI-XII
 Riverine forest or forest (margins).
 Mwango, Mpelepele (SWA). The roots are used to treat skin diseases.



Schizozygia coffaeoides *Strophanthus courmontii*

19. STROPHANTHUS

Inflorescence terminal, corolla lobes overlap to the right. Fruit of 2 woody follicles; seed with hairy coma on a naked stalk.

- | | |
|--|------------------------------|
| 1. Leaves and twigs hispid | 2. <i>S. kombe</i> |
| * Leaves and twigs glabrous or puberulous | 2 |
| 2. Shrub, leaves up to 3.6 by 1.4cm large; dry bushland | 3. <i>S. mirabilis</i> |
| * Climber; leaves larger; forest or moist bushland | 3 |
| 3. Corolla lobes with long tails | 4 |
| * Corolla lobes not tailed, acute | 1. <i>S. courmontii</i> |
| 4. Leafbase cuneate; fruit wall thick | 4. <i>S. petersianus</i> |
| * Leaf base rounded or subcordate; fruit wall thin and brittle | 5. <i>S. zimmermannianus</i> |

1. *Strophanthus courmontii* Franch.

Liana 5-20m; bark smooth, lenticellate, with triangular corky pyramids to 2cm. Leaves ovate or elliptic, base rounded or cuneate, apex short-acuminate, 3.5-9.5 by 2.5-5.5cm, glabrous. Flowers white or yellow with red markings, 1-3 together; corolla tube 25-

34mm, lobes 25-37mm long. Fruit grey-black, lenticellate, 12-26 by 3-4.5cm.

K7; 1-300m; I-III, IX, XI-XII *

Dry forest or riverine forest.

Mbuba (SWA), Mubuluzi (GIR), Wakama (PKM).

2. *Strophanthus kombe* Oliv.

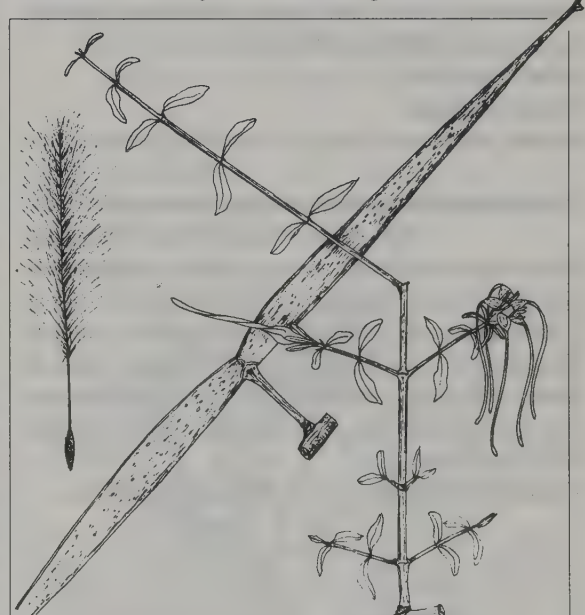
Liana 2-20m. Leaves obovate or elliptic, base rounded or subcordate, apex shortly acuminate, 7-20 by 3-10cm, densely hispid. Flowers white or yellow spotted with pink, in rather dense cymes; corolla tube 15-21mm, lobes 5-10mm long, with filiform tails which are 10-16cm long. Fruit long-tapering to a knobby apex, 20-45 by 1.3-2.5cm long.

K7; 1-500m; IV *

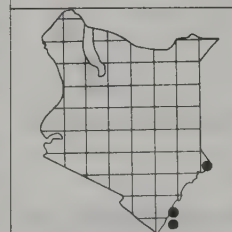
Forest, thicket, or wooded bushland.

3. *Strophanthus mirabilis* Gilg

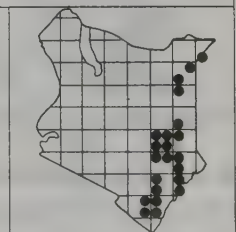
Shrub, occasionally with scrambling branches, 1-4.5m.



Strophanthus mirabilis



Strophanthus kombe



Strophanthus mirabilis

Leaves narrowly elliptic, base cuneate, apex rounded or obtuse, 0.8-3.6 by 0.3-1.4cm, ciliate on the margins. Flowers (occasionally appearing before the leaves) white or yellow with red or pink spots, usually solitary; corolla tube 6.5-13mm, lobes 4-8mm, with tails 5-8cm long. Fruit brown, tapering to a knobby apex, 16.5-32 by 1-1.8cm.

K147; 1-600m; I-XII (I,V)

Acacia-Commiphora bushland.

Marajis (BOR), Alwota-mote (ILW), Bellam (ORM), Dumadera, Goyo gusho (SOM). The roots are said to be edible when cooked.

4. *Strophanthus petersianus* Klotzsch

Liana 2-15m; stems with corky pyramids to 25mm high. Leaves ovate or elliptic, base cuneate, apex shortly acuminate, 4-10 by 1.5-4cm, glabrous. Flowers white or yellow with red markings, solitary or in pairs; corolla tube 20-37mm, lobes 9-15mm, with tails 8-18cm long. Fruit dark brown, lenticellate, tapering to the apex, 20-37 by 2-3.5cm.

K7; 1-50m; II-III, X *

Forest (margins).

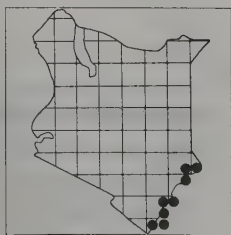
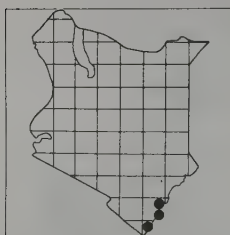
Mbuba, Mvarisoo (SWA).

5. *Strophanthus zimmermannianus* Monach.

VULNERABLE/ENDANGERED

Liana of unknown size. Leaves ovate or elliptic, base rounded or subcordate, apex acuminate, 8-17 by 3-7.5cm, glabrous. Flowers cream or yellow, in few-flowered lax cymes; corolla tube 18-26mm, lobes 6-8mm, with tails 5-6cm long. Fruit reddish-brown, thin-woody, tapering to a small knob, 32-40 by 1.2cm. K7; 350-450m; III *

Collected three times in the Shimba Hills forests.



Strophanthus petersianus *Tabernaemontana elegans*

20. TABERNAEMONTANA

Inflorescence terminal or in forks, corymbose. Corolla tube twisted, lobes overlapping to the left and also

twisted. Fruit of 2 subglobose or pod-like fleshy carpels.

1. Corolla tube 5-7mm long; fruit ovoid, with apiculate apex **1. *T. elegans***

- * Corolla tube >12mm long; fruit subglobose or with a rounded apex **2**

2. Corolla tube 12-17mm long, as thick as the lobe-diameter in bud; fruit ellipsoid, oblique, ridged **4. *T. ventricosa***

- * Corolla tube \geq 18mm long, narrower than the lobe-diameter in bud; fruit subglobose **4**

3. Corolla tube barely twisted; leaf veins gradually curved **2. *T. pachysiphon***

- * Corolla tube twisted a whole 360 degree over its length; leaf veins straight for two-thirds of their length **3. *T. stapfiana***

1. *Tabernaemontana elegans* Stapf

[*Conopharyngia elegans* (Stapf) Stapf]

Shrub or tree 4-15m; bark pale brown, corky, fissured. Leaves shiny, narrowly elliptic, base cuneate, apex shortly blunt-acuminate, 6-19 by 2-6cm, glabrous. Flowers white or pale yellow, in many-flowered lax corymbs; corolla tube 5-7mm; lobes 6-12mm long. Fruit green and grey and white-speckled, ovoid, apiculate, three-ridged, 5-8 by 4-6.5cm.

K7; 1-200m; I, III-V, X-XII

Moist or dry forest or coastal wood/bushland.

Mbombo (SWA), Yamoozi (BON), Chibombo cherero (DIG).

2. *Tabernaemontana pachysiphon* Stapf

[*T. holstii* K.Schum., *Conopharyngia holstii* (K.Schum.) Stapf]

Tree 4-10m; bark dark brown, fissured. Leaves elliptic, base cuneate, apex short and bluntly acuminate, 11-32 by 5-15cm, glabrous. Flowers white, in long, lax corymbs; corolla tube 25-35mm long, lobes 33-45mm long. Fruit pale green with white dots, subglobose, 7-15cm.

K7; 50-450m; II-IV *

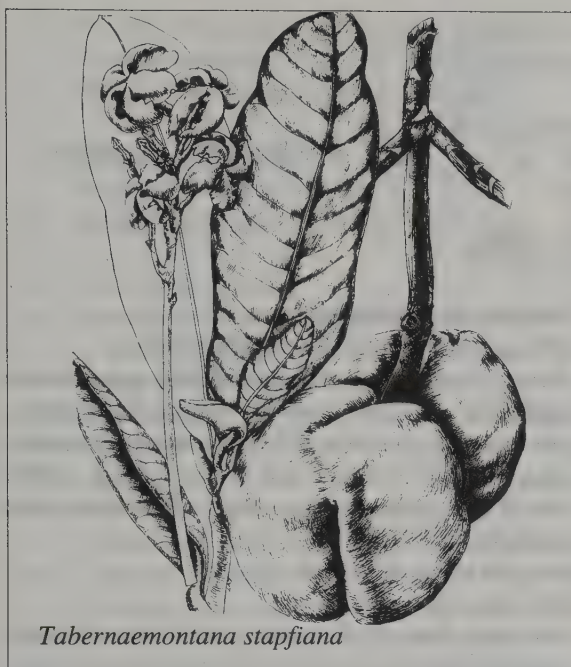
Forest (margins) in Shimba Hills.

Kibombo (DIG). Wood soft, not durable in the ground.

3. *Tabernaemontana stapfiana* Britten

[*T. johnstonii* (Stapf) Pichon, *Conopharyngia johnstonii* Stapf]

Tree 4-21m; bark corky, brown, corrugated in small



Tabernaemontana stapfiana

Shrub or tree 2.5-10m; bark pale brown, longitudinally fissured. Leaves narrowly elliptic, base rounded or cuneate, apex blunt or bluntly acuminate, 9-22 by 2.5-8cm, glabrous. Flowers white or pale yellow, in rather dense corymbs to 23cm long; corolla tube 12-17mm, lobes 12-25 long. Fruit olive-green, obliquely ellipsoid, with 2 faint lateral ridges, 6-9 by 4.5-6cm.

K 4567; 700-1650m; II-V, VII, IX-XII

Riverine or groundwater forest.

Muerere (KIK), Shitondo (LUH), Adhiang' (LUO), Kiracha (TAV). The latex is used to heal wounds. Wood soft, white.

21. VOACANGA

Inflorescences in pairs in forks of branches; corolla tube twisted, lobes twisted and overlapping to the left. Fruit of fleshy carpels, many-seeded.

1. Leaves obtuse or rounded at apex; corolla lobes 28-43mm wide; Kakamega area

2. *V. thouarsii*

- * Leaves bluntly acuminate; corolla lobes 7-16mm wide; SE Kenya

1. *V. africana*

1. *Voacanga africana* Stapf

(*V. lutescens* Stapf)

Tree 4.5-10m; bark pale grey-brown, smooth or slightly

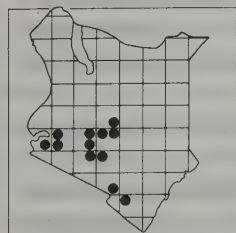
square patches. Leaves (narrowly) elliptic or slightly obovate, base cuneate, apex rounded or short-acuminate, 15-40 by 4-18cm, glabrous. Flowers white with a yellow throat, in fairly lax inflorescences to 28cm long; corolla tube 18-30mm, lobes 17-38mm long. Fruit green with yellow spots, subglobose, 10-20cm. K457; 1500-2300m; I-III, VI, X-XII (I-II)

Moist forest; may be common where forest has been disturbed.

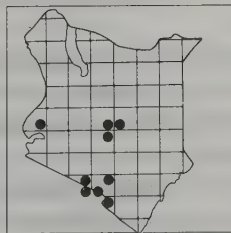
Mwelele, Mwerere (KIK), Erendet, Terendet (KIP), Omobondo (KIS), Kunandere (LUH), Muerere (MER), Mabondet (NAN), Derendet (NDO), Cheboition (TUG). Wood soft, white.

4. *Tabernaemontana ventricosa* A.DC.

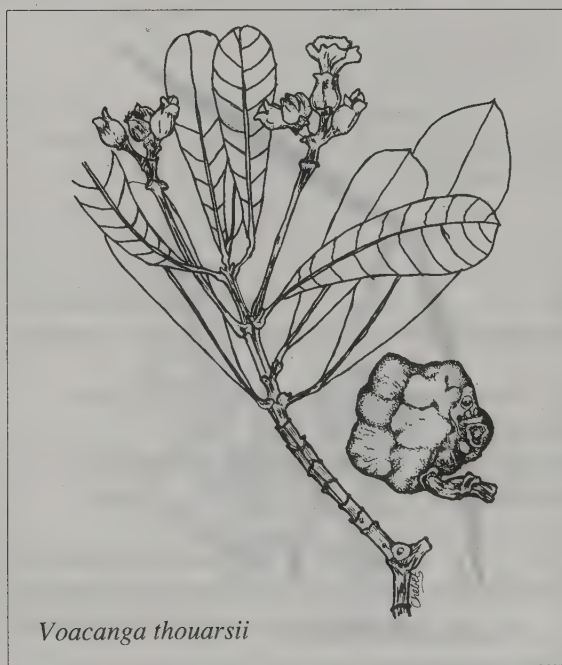
[*T. usambarensis* K.Schum.; *Conopharyngia usambarensis* (K.Schum.) Stapf]



Tabernaemontana stapfiana



T. ventricosa



Voacanga thouarsii

fissured. Leaves narrowly obovate, base cuneate or obtuse, apex bluntly acuminate, 10-30 by 3.5-10cm, glabrous or puberulous. Flowers cream or yellow, in up to 25cm long corymbs; corolla tube 7-15mm long, lobes 12-37mm long. Fruit dark/light green spotted, obliquely subglobose, 3-8cm across.

K7; 1-50m; -*

Collected twice in swampy sites in the extreme SE corner of Kenya.

2. *Voacanga thouarsii* Roem. & Schult.

(*V. obtusa* K.Schum.)

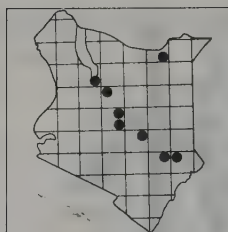
Tree 10-15m; bark greybrown, smooth or irregular. Leaves narrowly obovate, base attenuate, apex obtuse or rounded, 9-10 by 3-6cm, glabrous. Flowers cream or pale yellow, in up to 21cm long corymbs; corolla tube 17-23mm, lobes 19-30mm long. Fruit pale/dark green spotted, subglobose, 4-10cm across.

K5; 1300-1600m; IV, VII *

Locally common in swamps in the Kakamega area. Adhiang' (LUO). Wood hard, tough.

22. WRIGHTIA

Inflorescence terminal; corolla lobes overlap to the left. Fruit of 2 narrow, thin-walled follicles.



Wrightia demartiniana

***Wrightia demartiniana* Chiov.**

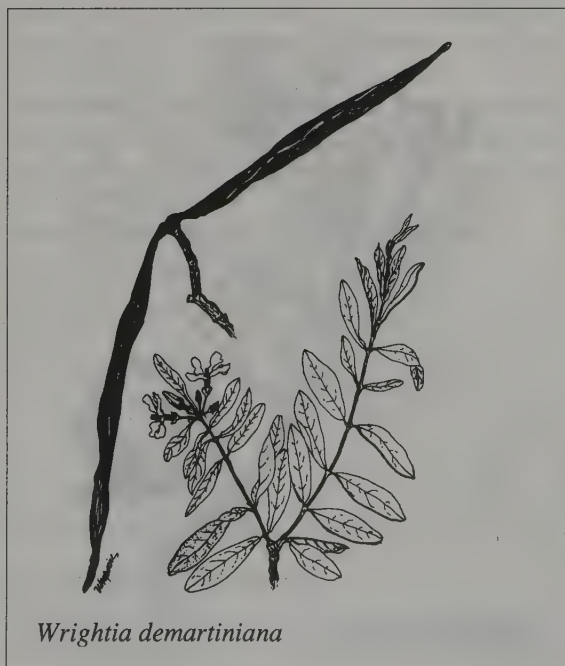
[*Piaggiaea demartiniana* (Chiov.) Chiov.]

Shrub or tree 1-4.5m; bark smooth, dark grey. Leaves (narrowly) elliptic to somewhat obovate, base cuneate, apex rounded, 1.2-8 by 0.5-2cm, glabrous or puberulous. Flowers white or cream, in dense cymes; corolla tube 5-8mm, lobes 8-15mm long. Fruit greygreen, pendulous, 12-26 by about 1cm.

K17; 50-900m; III-V, VII, IX-XI *

Dry rocky bushland.

Rabba(h), Habrota, Takadaua (BOR), Hae (ORM), Lemuni, Limigeria, Loile (SAM), Hanya, Haya-hayah, Maiyo (SOM). Branches are used as (friction-) fire-ticks.



Wrightia demartiniana

231. ASCLEPIADACEAE

Plants with milky latex. Leaves opposite, with minute stipules. Flowers 5-merous, usually with a corona; anthers with pollen in sticky pollinia. Fruit of 2 follicles; seeds with a hairy coma.

NOTE: I consider this one of the weaker keys of this book. Serious taxonomic treatment is much needed for this area.

- | | |
|---|----------------------|
| 1. Erect shrubs | 2 |
| * Climbers | 4 |
| 2. Leaves linear or nearly so, less than 1.5cm wide | 3 |
| * Leaves obovate, 5-13cm wide | 2. <i>Calotropis</i> |
| 3. Plants of streambanks; corolla 9-13mm long | 9. <i>Kanahia</i> |
| * Plants of rock crevices; corolla 2-3mm long | 14. <i>Sacleuxia</i> |
| 4. Plant completely glabrous (except possibly the corolla) | 5 |
| * Plant <u>at least</u> hairy at nodes or on inflorescence | 7 |
| 5. Highland plants (1700-2400m); leaves linear or nearly so | 13. <i>Periploca</i> |
| * Plants from below 1000m; leaves not linear | 6 |

6. Flowers white or pale mauve; corolla lobes linear near apex **3. *Cryptolepis***
- * Flowers dark purple; corolla lobes ovate **12. *Parquetina***
7. Corolla 8-15mm long **8**
- * Corolla less than 8mm long **11**
8. Stipules forming a frilly ridge at the nodes **11. *Mondia***
- * Frilly ridge absent **9**
9. Leaves velvety beneath, leaf apex rounded or minutely apiculate **10**
- * Leaves glabrous or nearly-hairy, leaf apex acuminate **6. *Dregea***
10. Flowers in inflorescences to 12cm; fruit 6-7cm long **1. *Baseonema***
- * Flowers in inflorescences to 2cm; fruit 13-14cm long **4. *Curroria***
11. Leaf apex rounded (dry bushland) **4. *Curroria***
- * Leaf apex acute, apiculate, or acuminate **12**
12. Flowers in axillary panicles 5-18cm long **16. *Tacazzea***
- * Flowers in axillary cymes less than 5cm long, or in terminal panicles to 8cm (15. *Secamone africana*) **13**
13. Corona-lobes hairy at apex **14**
- * Corona-lobes glabrous **15**
14. Western/Coastal species of forest and thicket **8. *Gymnema***
- * Northern species of riverine habitats **10. *Leptadenia***
15. Corona lobes fused laterally **5. *Cynanchum***
- * Corona lobes free **16**
16. Corona lobes laterally flattened **15. *Secamone***
- * Corona lobes dorsally flattened **17**
17. Leaves tomentellous beneath; forest or riverine **7. *Gongronema***
- * Leaves either glabrous or if tomentellous then plants of dry bushland **6. *Dregea***

1. BASEONEMA

Baseonema gregorii Schlecht. & Rendle

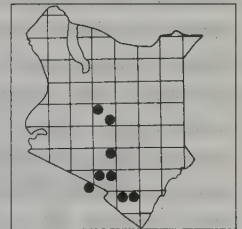
Climber, size unknown. Leaves elliptic to almost round, base cuneate to subcordate, apex obtuse or rounded with a small apiculum, 3-10 by 1.5-7cm, short-velvety (at least beneath). Flowers lime-green, in loose terminal cymes to 12cm; corolla about 1cm long, with reflexed lobes. Follicles usually in pairs, 6-7cm long and about 1cm across, velvety-hairy.



K1467; 450-1500m; II, IV-V *

Dry bushland; usually in rocky sites or near rivers/luggas.

The roots are edible.



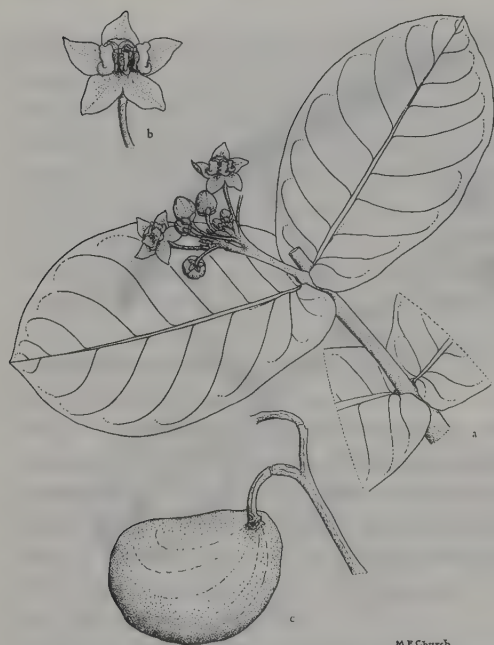
2. CALOTROPIS

Flowers in dense axillary umbels. Follicles inflated.

1. Fruit oblong, pointed; corona lobes truncate **1. *C. gigantea***
- * Fruit broadly ellipsoid, rounded, corona lobes acute **2. *C. procera***

1. *Calotropis gigantea* (L.) Dryand.

Resembling the next species, but with beaked fruits. An escape on the coast and at Baringo.



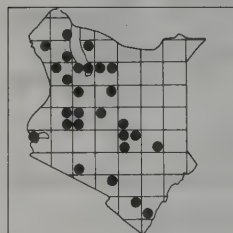
Calotropis procera (Ait.) Ait. f.
a: flowering branchlet ($\times \frac{1}{2}$). b: flower ($\times 1$). c: fruit ($\times \frac{1}{2}$).
All from Turner 3584.

2. *Calotropis procera* (Ait.) Ait.f.

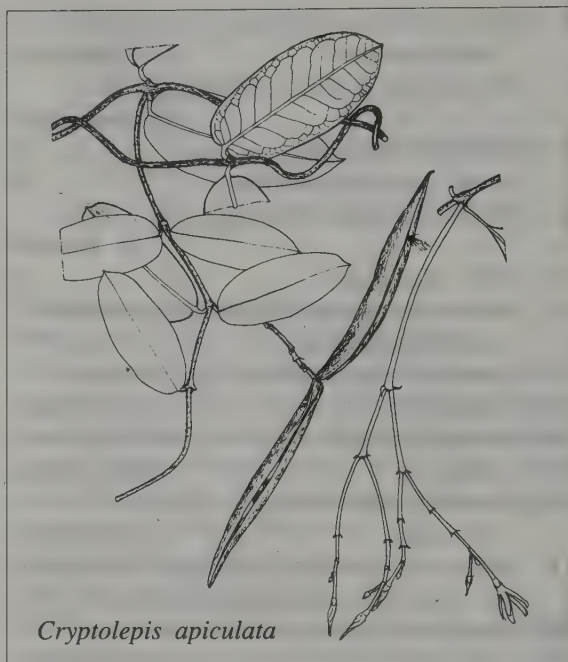
Shrub or tree, 1-4(6)m, with much latex. Leaves obovate, base (sessile) auriculate, apex acute or apiculate, 8-25 by 5-13cm, hairy or glabrous beneath. Flowers white and purple, in long-stalked axillary umbels; corolla 11-16mm long. Fruit follicles green, inflated, oblong-globose, 10-13 by 6-8cm. K1234567; 300-1200m; I-XII (VIII).

In dry areas, usually along (seasonal) rivers, or in roadsides. May be locally common.

Dead sea fruit (STAND), K'obbo (GAB), Motyabuba, Mrugha (ILW), Ilumbu, Muvuthu (KAM), Okwot-pu (LUO), Ararat (MAR), Muk-rugha (ORM), Labechi, Laibeleh (SAM), Etetheru (TUR). A root infusion is used against camel cough; the wood is used for making canoe-paddles and firesticks.



Calotropis procera



Cryptolepis apiculata

3. CRYPTOLEPIS

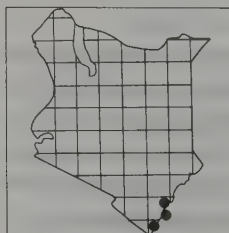
Flowers in loose axillary panicles; corolla lobes with long-drawn out tips.

1. Leaves sessile, with auriculate base; flowers pale mauve
2. *C. hypoglauca*
- * Leaves with petiole and cuneate or rounded base, flowers white
- 2
2. Leaves 7-14 by 3-8cm; corolla 15-18mm long
1. *C. apiculata*
- * Leaves 2-7 by 0.5-3cm; corolla 5-6mm long
3. *C. obtusa*

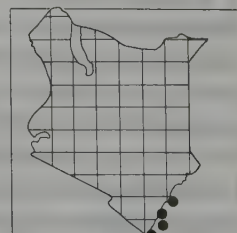
1. *Cryptolepis apiculata* K. Schum.

(probably = *C. sinensis* (Lour.) Merr. ssp. *africana* Bullock)

Woody vine to 3m. Leaves broadly elliptic, base rounded, apex abruptly apiculate, 7-14 by 3-8cm,



Cryptolepis apiculata



Cryptolepis hypoglauca

glabrous. Flowers white or pale yellow, in panicles to 15cm; corolla 15-18mm long. Fruit follicles narrowly oblong, each follicle about 8 by 1cm.

K7; 1-400m; V-VI, VIII *

Forest or evergreen thicket.

2. *Cryptolepis hypoglauc* K. Schum.

Liana to 6m. Leaves slightly obovate, whitish beneath, base (sessile and) auriculate, apex abruptly apiculate, 4-12 by 3-7cm, glabrous and often with a bloom. Flowers pale mauve, in panicles to 16cm; corolla to 9mm. Fruit follicles narrow, each to 28 by 0.5cm.

K7; 1-200m; VII-VIII, XII *

Evergreen closed coastal thicket.

3. *Cryptolepis obtusa* N.E. Br.

Liana to 4m. Leaves obovate, base cuneate to obtuse, apex minutely apiculate, 2-7 by 0.5-3cm, glabrous. Flowers white, in panicles to 7cm; corolla 5-6mm long. Fruit narrow, each follicle 5-10cm long.

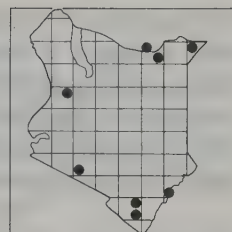
K7; in Kenya only known from the Voi area; II, VII *
Dry bushland.

4. CURRORIA

Curroria volubilis (Schlecht.) Bullock

Woody climber, size unknown (up to 2m?). Leaves

Curroria volubilis



generally on short shoots, elliptic to obovate, base cuneate, apex rounded, 2-5 by 0.6-2cm, shortly velutinous (esp. beneath). Flowers yellow-green, in few-flowered racemes to 2cm; corolla 5-8mm long. Follicles 13-14 by 0.8cm.

K167; 1-1200m; III-VI, X-XII *

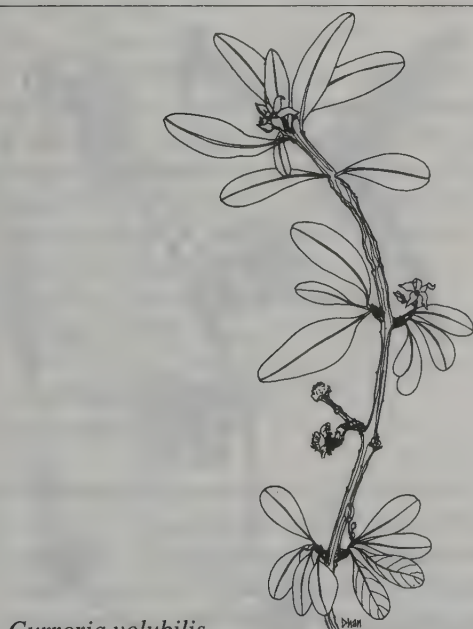
Dry (*Commiphora*) bushland, usually in rocky sites. Koligo (TUR).

5. CYNANCHUM

Most species are dealt with satisfactorily in U.K.W.F., and are more or less herbaceous.

Cynanchum omissum Bullock

Woody climber. Leaves elliptic, base cuneate, apex acute, 2-4 by 0.8-1.8cm, glabrous. Flowers greenish, in dense axillary spikes; corolla about 6mm long. Fruit unknown.



Curroria volubilis



Cynanchum omissum

K7; Only known from the type, Drummond & Hemsley 4045, collected at Taru, 350m, and from Luke & Robertson 1288 near Dalu, 20m; VIII *

Dry *Acacia-Commiphora* bushland.

NOTE. the other specimen cited in the protologue, Bally 2695, is *C. tetrapterum*.

6. DREGEA

Inflorescences umbellate or cymose.

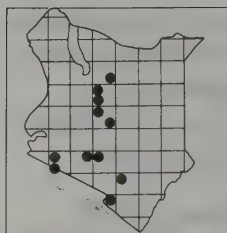
- | | |
|--|--------------------------|
| 1. Flowers present | 2 |
| * Fruits present | 6 |
| 2. Buds conical | 4. <i>D. schimperi</i> |
| * Buds round | 3 |
| 3. Inflorescence sessile | 5. <i>D. stelostigma</i> |
| * Inflorescence stalked | 4 |
| 4. Corolla 5-6mm long; plants of altitudes above 1200m | 1. <i>D. abyssinica</i> |
| * Corolla 8-12mm long; plants from below 1200m | 5 |
| 5. Calyx lobes obtuse, less than 5mm long | 3. <i>D. rubicunda</i> |
| * Calyx lobes acute, over 6mm long | 2. <i>D. macrantha</i> |
| 6. Fruits not winged | 7 |
| * Fruits winged | 8 |
| 7. Dry bushland species; fruit about 10cm long | 2. <i>D. macrantha</i> |
| * Forest or riverine species; fruit 6-8cm long | 4. <i>D. schimperi</i> |
| 8. Fruits with many undulate wings | 1. <i>D. abyssinica</i> |
| * Fruits with 4 wings | 9 |
| 9. Riverine species; fruit usually less than 6cm long | 3. <i>D. rubicunda</i> |
| * Dry bushland species; fruit usually over 7cm long | 5. <i>D. stelostigma</i> |

1. *Dregea abyssinica* (Hochst.) K. Schum.

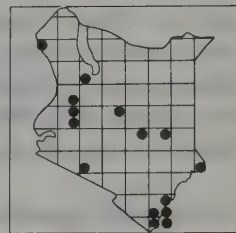
Climber to 7.5m (or a bush in grassland). Leaves ovate, base cuneate or rounded, apex acuminate, 4-12 by 3-7cm, glabrous or minutely puberulous. Flowers (greenish) white or cream, in axillary semi-umbels to 4cm; corolla 5-6mm long. Follicles narrowly ovate, 6-10 by 1.5-2cm, with a narrow apex and many wavy ridges.

K1467; 1200-1800m; II-IV, VI-X

Drier forests and riverine forest; also in grassland after forest has been removed.



Dregea abyssinica



Dregea rubicunda

Simatwet (KIP), Olteti (MAA), Latalesi (SAM). A bark infusion is employed against diarrhoea by the Maasai, and the stems are used for rope.

2. *Dregea macrantha* Klotzsch

Climber. Leaves as in *D. abyssinica*. Flowers yellow-green, in axillary semi-umbels to 4cm; corolla 10-12mm long. Fruit follicles ovoid, about 10 by 4cm, hardly ridged.

Known from Olorgesailie (anno 1943, 1963), Witu (1990) and Kiunga (anno 1947); VIII, XII *

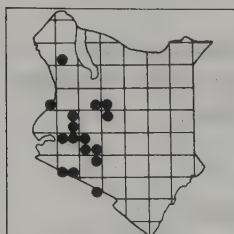
Dry bushland.

3. *Dregea rubicunda* K. Schum.

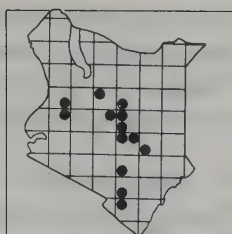
Climber to 9m. Leaves as in previous species, but base often subcordate, and (especially young leaves) often mealy-tomentose beneath. Flowers (greenish) white,



Dregea abyssinica



Dregea schimperi



Dregea stelostigma

in semi-umbels to 4cm; corolla 8-10mm long. Fruit follicles ovoid, 7-10 by 2-4cm, with 4 wings along their length.

K12367; 1-1200m; IV-VI, VIII, XII *

Inland in riverine woodland or thicket, on the coast in evergreen bushland or thicket.

Mrua (SWA), Kobochon (MAR), Chemokol (PKT), Lengopito (SAM), Ebolo, Ekweiyen (TUR).

4. *Dregea schimperi* (Decne.) Bullock

Climber, 1-5m. Leaves as in other species, usually mealy-tomentose beneath. Flowers white or yellow, in axillary cymes to 5cm; corolla 8-12mm long. Fruit follicles (narrowly) ovoid, 6-8 by 2-4cm, not winged.

K12346; 1650-2400m; I-II, IV-VII, XII (V)

Dry forest (margins), riverine woodland, bushland near forest edges.

Engoriabiti (MAA), Kobochon (MAR). Wood used for tool handles.

5. *Dregea stelostigma* (K. Schum.) Bullock

Climber 2-9m; bark with corky wings. Leaves similar to preceding species, but usually much smaller; tomentellous. Flowers white or cream, in sessile clusters to 2cm across; corolla 3-5mm long. Fruit follicles ovoid, 4-7.5 by 1.5-3cm, 4-winged.

K1347; 300-1050m; I-V, X-XII (V, XII)

Rocky *Acacia-Commiphora* bushland.

Chemakol (PKT).

7. GONGRONEMA

Very similar to *Dregea*.

Gongronema angolense (N. E. Br.) Bullock

Climber to 3.5m. Leaves ovate, base cordate, apex acuminate, 4-12 by 2.5-10cm, tomentellous beneath. Flowers (greenish) cream, in axillary semi-umbels to 4cm; corolla 4-5mm long. Fruit follicles narrowly oblong, 13-15 by 0.8cm.



Gongronema angolense

K56; 1600-1800m; II, IX *

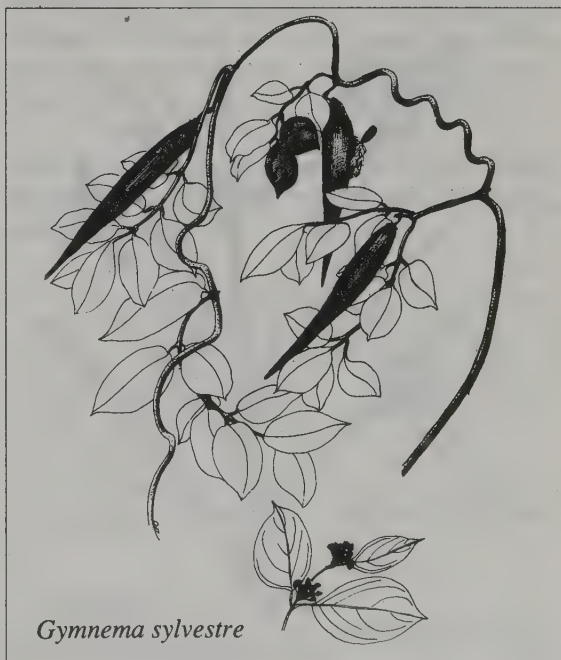
(Riverine) forest (remnants); known from Lolgorien, Intona and Sotik.

8. GYMNEMA

Flowers in axillary umbels.

Gymnema sylvestre (Retz.) Schult.

Climber to 2m (more?). Leaves elliptic or ovate, base

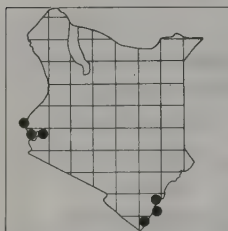


Gymnema sylvestre

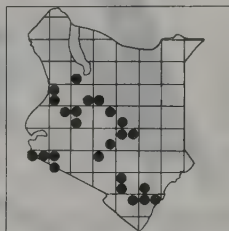
cuneate to subcordate, apex acute to shortly acuminate, 3-6 by 2-4cm, tomentellous beneath. Flowers yellow, in umbels to 2cm; corolla 2-3mm long. Follicles narrowly oblong, 7-8 by 0.8-1cm.

K57; 1-350m (coast) and 1200-1700m; I, IV, VI-VII *

On the coast in forest; in Western province in thickets.



Gymnema sylvestre



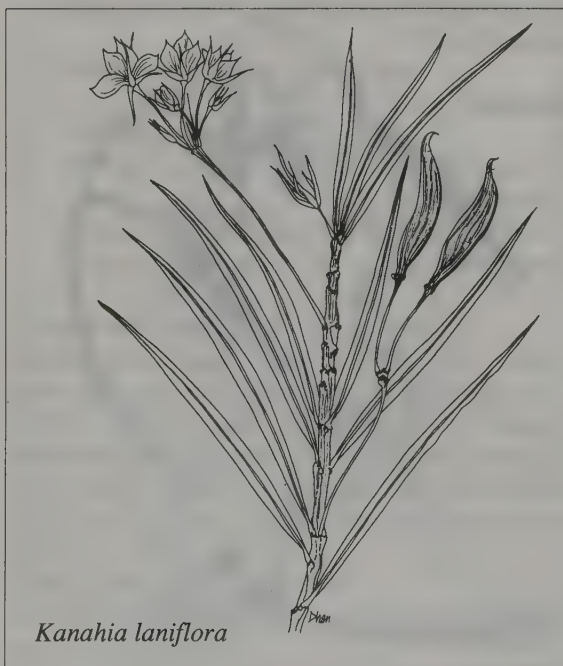
Kanahia laniflora

9. KANAHIA

Unbranched shrub. Flowers in axillary stalked cymes.

Kanahia laniflora (Forssk.) R. Br.

Shrub 0.5-2.5m growing in clumps. Leaves linear, base gradually narrowing, 9-18 by 0.5-1.2cm, glabrous. Flowers white, in long-stalked cymes; corolla 9-13mm long. Fruit follicles narrowly oblong, 3.5-6 by 0.5-1cm, almost parallel.



Kanahia laniflora

K1234567; 100-1800m; I-XII

Along (seasonal) streams or lakes in dry areas.

Chepokorus (PKT), Eponet (TUR). A plant decoction is used against epilepsy by the Pokot.

10. LEPTADENIA

Flowers in axillary umbellate cymes.

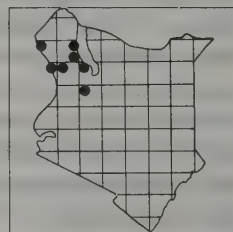
Leptadenia hastata (Pers.) Decne.

Liana 3-8m. Leaves ovate or elliptic, base cuneate, apex acute or shortly acuminate, 4-9 by 2-6cm, short-pubescent. Flowers white or pale yellow, in umbels to 3cm; corolla 4-6mm long. Fruit follicles narrowly ovoid, 6-8 by 1.5-2cm.

K12; 350-900m; I, VI-IX *

In riverine or lakeside thickets or -woodland.

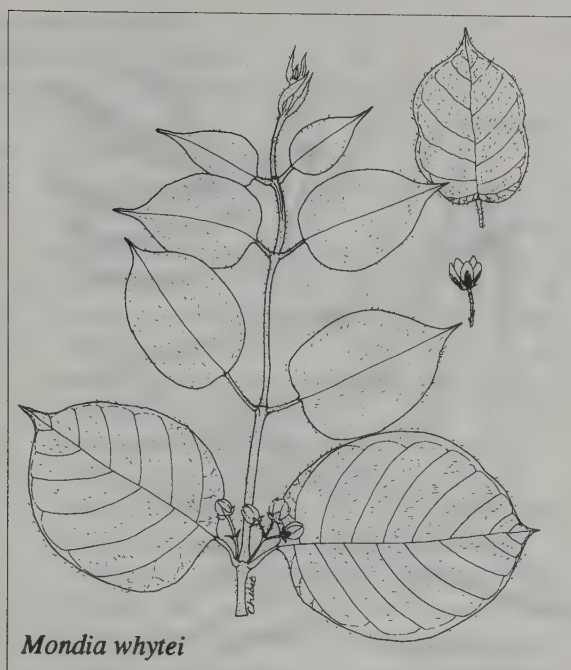
Ekamong'o (TUR).



Leptadenia hastata



Leptadenia hastata



11. MONDIA

Stipules developed into frills at the nodes; inflorescences axillary panicles.

1. Corona with long appendages 2. *M. whytei*
 * Corona without appendages 1. *M. ecornuta*

1. *Mondia ecornuta* (N.E. Br.) Bullock

Climber, size unknown. Leaves elliptic, base cuneate to rounded, apex abruptly acuminate, 11-15 by 6-9cm, glabrous. Flowers yellow-green and purple, in panicles to 12cm long; corolla 10-13mm long. Fruit 9 x 2.5cm. K7; Chasimba limestone outcrop and Mrima, Dzombo, Shimba Hills.

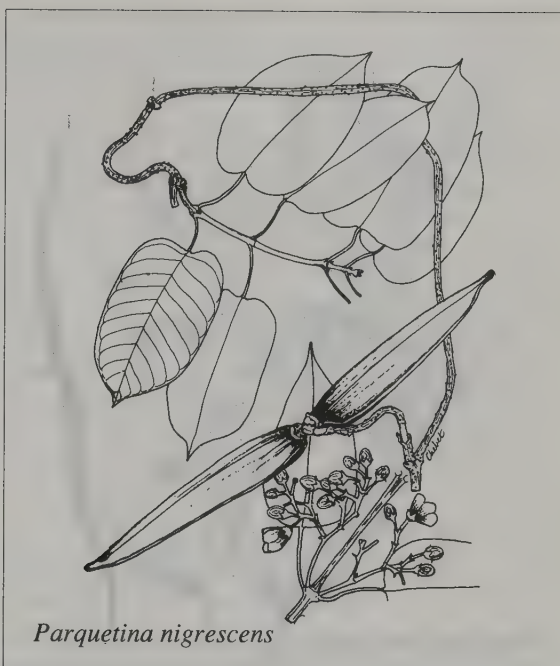
2. *Mondia whytei* (Hook.f.) Skeels

(*M. ecornuta* sensu UKWF)

Climber, 3-6m. Leaves broadly ovate, base (sub) cordate, apex abruptly acuminate, 7-15 by 4-11cm, tomentellous when young but becoming more glabrous. Flowers yellow and reddish-purple, in panicles to 12cm long; corolla 11-12mm long. Fruit follicles ovoid, 7-8 by 1.5-2cm.

K45; only known from Kakamega, Mukua (W. Bukusu) and Kariti (28km from Thika), in forest.

Muhukura (KIK), Kumukombelo (LUH). The root is given to women after childbirth and as a stimulant.



12. PARQUETINA

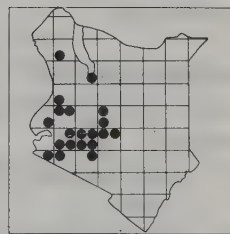
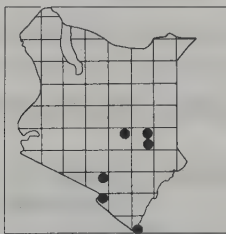
Flowers in axillary corymbs.

Parquetina nigrescens (Afz.) Bullock

Liana to 18m; bark corky. Leaves ovate, base rounded or subcordate, apex acuminate, 7-18 by 3.5-13cm, glabrous. Flowers green to purple, in cymes to 5cm long; corolla 10-12mm long. Fruit follicles narrowly ovoid, 10-20 by 1.5-2cm.

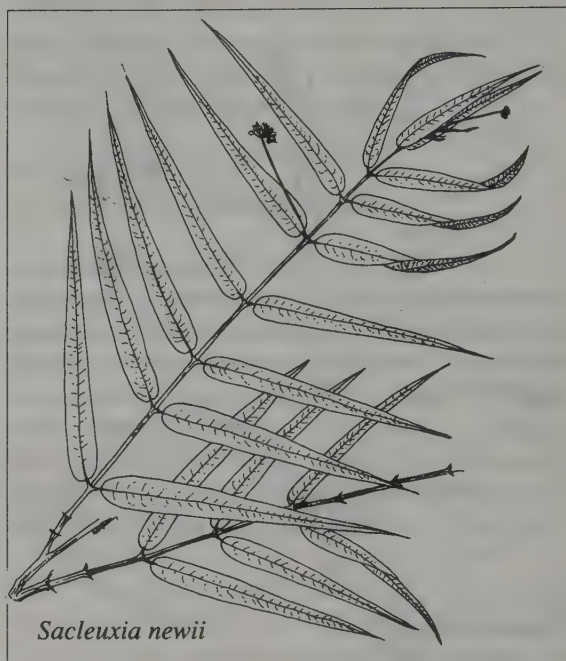
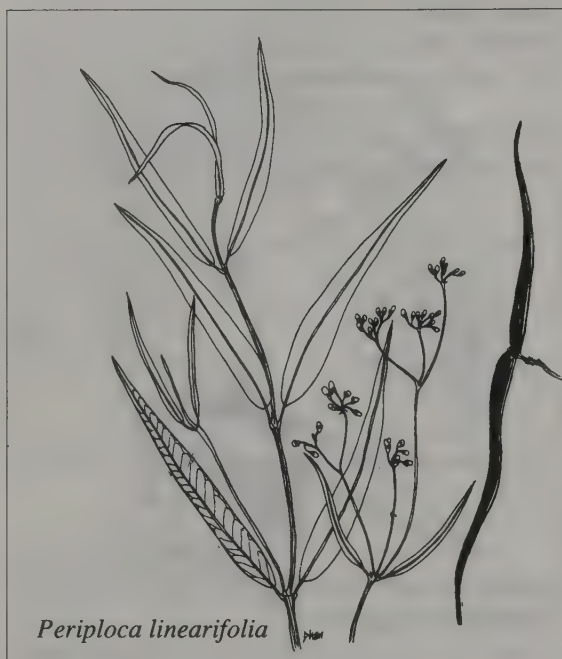
K47; 1-1000m; I, III, VI, VIII-IX *

Riverine (Tana) or groundwater (Kibwezi, Taveta) forest; on the coast in forest near the sea (Shimoni). Alwota (ILW).



13. PERIPLOCA

Flowers in corymbose panicles.



***Periploca linearifolia* Dill. & A. Rich.**

Climbing herb or real liana to 10m. Leaves linear or narrowly elliptic, base cuneate or obtuse, apex gradually tapering, 4-9 by 0.2-1.2cm, glabrous. Flowers cream or greenish-yellow, in axillary panicles to 15cm; corolla 3-5mm long. Fruit follicles cylindric, 6-15 by 0.4-0.5cm.

K123456; 1700-2400m; I-II, IV-IX (I, VI-VII)

Forest margins, riverine forest, secondary bushland derived from forest.

Muimbaguru (KIK), Sinendet (KIP, OKI, PKT), Muhalia (LUH), Osinendei, Osinande (MAA), ES-inindet (MAR), chokilewa (TUR). A ceremonial plant for Kalenjin.

14. SACLEUXIA

Roots tuberous. Flowers in axillary, long-stalked racemes.

- | | |
|---|------------------------------|
| 1. Leafbase often obtuse; peduncles over 2cm long | 1. <i>S. newii</i> |
| * Leafbase cuneate; peduncles less than 1cm long | 2. <i>S. tuberosa</i> |

1. *Sacleuxia newii* (Benth.) Bullock
(*Gymnolaema newii* Benth.)

Shrub 1.5-2.5m; roots with (often exposed) tuber to

15cm across. Leaves more or less linear, base cuneate or obtuse, apex long-tapering, 7-20 by 0.4-1.5cm, glabrous or sparsely pubescent. Flowers (greenish) yellow, in long-stalked racemes to 10cm; corolla 2-3mm long. Fruit follicles narrowly oblong, 3-4.5 by 0.4-0.6cm.

K47; 550-1400m; I, III-V, VIII-IX, XII *

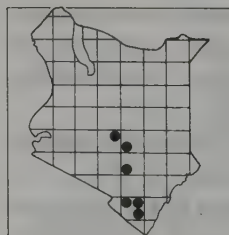
In rock crevices in dry areas.

2. *Sacleuxia tuberosa* (E.A. Bruce) Bullock

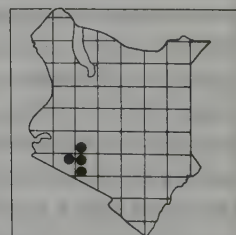
Shrub 2-5m, with overhanging stems. Leaves as in *S. newii*, but more pubescent. Flowers greenish yellow, in subsessile clusters to 1cm across; corolla 2-3mm long. Fruit as in *S. newii*.

K36; 1200-1850m; X, XII *

In rock crevices in the Rift Valley S. of L. Naivasha. Ormakuluet (MAA).



Sacleuxia newii



Sacleuxia tuberosa

15. SECAMONE

Inflorescences cymose.

1. Leaves pubescent all over (SW Kenya) *5. S. stuhlmannii*
- * Leaves (almost) glabrous 2
2. Leaves linear, hairy on midrib and margins (SE Kenya) *6. S. sp. A*
- * Leaves not linear, or if linear (*S. punctulata*) not hairy 3
3. Flowers in dense cymes, these less than 15mm across 4
- * Flowers in lax cymes, these more than 15mm across 5
4. Species of dry bush/woodland; old stems winged; stigma not thickened; flowers yellow or cream *2. S. parvifolia*
- * Species of forest or evergreen bushland; old stems warty; stigma thickened; flowers orange *3. S. punctulata*
5. Western species; cymes terminal, to 8cm; corolla 4-5mm long *1. S. africana*
- * Coastal species; cymes axillary and terminal, to 2.5cm; corolla 1.5-3mm long *4. S. sansibariensis*

NOTE: one of the weaker keys of this book.

1. *Secamone africana* (Oliv.) Bullock

Climber to 3m. Leaves elliptic or ovate, base cuneate or rounded, apex acuminate, 3-7 by 1-3cm, glabrous or nearly so. Flowers cream, in terminal panicles to 8cm long; corolla 4-5mm long. Fruit follicles narrowly oblong, 7-9 by 0.5-0.6cm.

K5; 1200-1800m; IX-X *

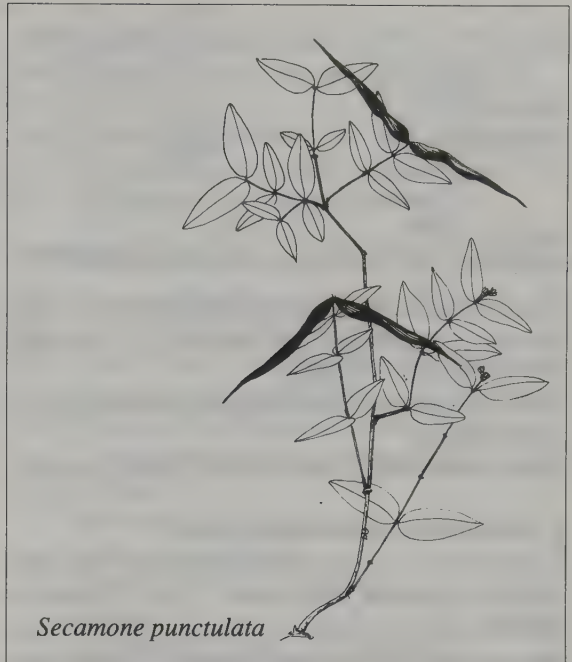
Forest or thicket edges; known from Sotik and Kisii District.

2. *Secamone parvifolia* (Oliv.) Bullock

Climber, 2-6m; old stems with 2 intermittent corky wings. Leaves broadly to narrowly ovate, base cuneate or rounded, apex acute, 1-5 by 0.5-0.3cm, glabrous or nearly so. Flowers cream or yellow, in small axillary and terminal cymes; corolla 2-3mm long. Fruit follicles narrowly oblong, 5-8 by 0.5-0.6cm.

K12(?3)47; 1-1050m; I-II, IV-VI, VIII, X-XIII (V, XII)

Inland in dry bushland or bushland/woodland, on the coast usually in evergreen thicket.



3. *Secamone punctulata* Decne.

Climber 2-6(15)m; old stems warty. Leaves very variable, from elliptic to almost linear, base attenuate to almost rounded, apex acute to acuminate, 2-8 by 0.2-2.5cm, glabrous or nearly so, often with translucent dots. Flowers orange-yellow, in small axillary cymes; corolla 1.5-2mm long. Fruit follicles 5-7 by 0.3-0.5cm.

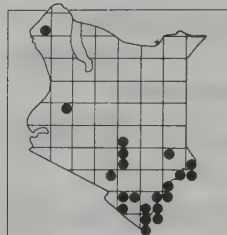
K1234567; 1-450m (coast) and (900) 1500-2400m; I-IV, VI-X, XII.

Dry forest, riverine forest, evergreen bushland.

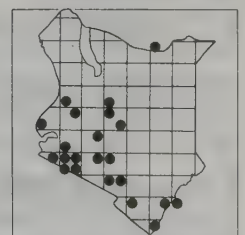
Molali (KAM), Sandab-ngingich (KIP), Osimandei (MAA), Sinende (TUG). Used for rope.

4. *Secamone sansibariensis* K. Schum.

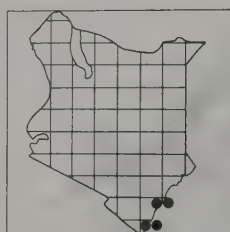
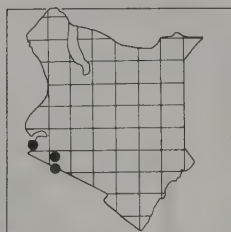
Climber 2.5-7.5m. Leaves elliptic, base cuneate, apex acute, 3-8 by 1-4cm, glabrous. Flowers white or



Secamone parvifolia



Secamone punctulata

*Secamone sansibariensis**Secamone stuhlmannii*

cream, in lax axillary and terminal cymes to 2.5cm; corolla 1.5-3mm long. Fruit follicles 5.5-9 by 0.5cm. K7; 1-400m; III-V, IX-XI*

Drier type (*Afzelia*) forest margins; also in *Brachystegia* woodland.

Mbugu bade (SWA), Chibugu (DIG), Mtungazi (GIR).

5. *Secamone stuhlmannii* K. Schum.

Climber to 5m. Leaves elliptic or slightly ovate, base cuneate or rounded, apex acute, 2-5 by 1-2.5cm, pubescent, especially beneath. Flowers (greenish) yellow, in small axillary cymes; corolla 1.5-3mm long. Fruit follicles 6-8 by 0.5cm.

K56; 1300-1750m; X*

Riverine bushland, or thicket.

Sandam-ningi (KIP), Engoilei (MAA). Used for rope.

Note. Paulo 1075, "Lodwar-Kitale road" is probably this species, but is sterile. I would assume it came from the Kongolai area.

6. *Secamone* sp. A of UKWF (Archer 213)

Climber with narrowly elliptic to linear leaves, 2.5-5 by 0.3-0.9cm, sparsely pubescent on midrib and margins. Flowers yellow, in small axillary and terminal cymes; corolla 2-3mm long. Fruit unknown.

K47; 300-900m; X-XII*

In rocky sites in bushes grassland; known from Kiboko, Lugard Falls and Worssera (Tsavo).

16. TACAZZEA

1. Leafbase (sub) cordate; riverine species

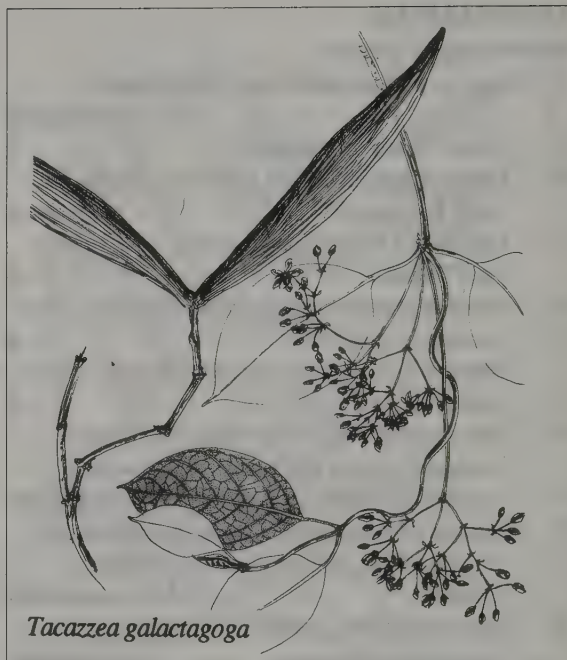
1. *T. apiculata*

* Leafbase cuneate; moist forest species

2. *T. galactogoga*

1. *Tacazzea apiculata* Oliv.

Climber to (?) 4m. Leaves ovate or elliptic, base (sub) cordate, apex apiculate, 5-14 by 2-9cm, usually densely

*Tacazzea galactogoga*

pubescent beneath. Flowers brick red, in lax axillary panicles to 12cm long; corolla 4-7.5mm long. Fruit follicles ovoid with pointed apex, 3-5 by 1-2cm, densely tomentellous.

K 1347; 1-1750m; I-II, IV-VII, IX, XII (V-VI)

Riverine forest.

Mareja (BOR), Nyerkich (PKT).

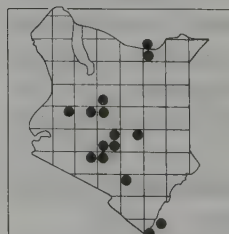
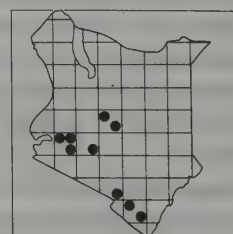
2. *Tacazzea galactogoga* Bullock

Liana 5-10m. Leaves elliptic, base cuneate, apex acuminate, 6-15 by 3-8cm, whitish tomentellous beneath. Flowers cream or greenish yellow, in axillary panicles to 18cm long; corolla 4-5mm long. Fruit follicles narrowly oblong, 10-17 by 1-1.5cm.

K13457; 850-2700m; II-III, V, XI*

Moist forest, bamboo.

Ngobito (MAA). The root stimulates milk secretion in humans and cattle.

*Tacazzea apiculata**Tacazzea galactogoga*

232. RUBIACEAE

Leaves opposite, or occasionally whorled, with *interpetiolar stipules*. Flowers with a tube and lobes, 4-8(-12)-merous. Fruit a capsule, berry or drupe.

1. Spines present 2
- * Spines absent 9
2. Spines straight or slightly recurved 3
- * Spines curved through more than 180 degrees 53. *Uncaria* (and 9. *Cladoceras*)
3. Stipules glabrous 4
- * Stipules densely hairy within 47. *Rytigynia*
4. Flowers/fruits axillary 5
- * Flowers/fruits terminal or on short spurs 6
5. Flowers/fruits in cymes; corolla less than 10mm long; fruit 10-17mm long 4. *Canthium*
- * Flowers/fruits solitary; corolla 60-100mm long; fruit 30-40mm long 14. *Didymosalpinx*
6. Flowers/fruits on short spurshoots 7
- * Flowers/fruits terminal to normal leafy branches 8
7. Corolla 9-15mm long; fruit not angled 6. *Catunaregam*
- * Corolla 3-5mm long; fruit bluntly 5-angled 29. *Meyna*
8. Shrub or tree; corolla 10-16 mm long; fruit 18-35mm long 6. *Catunaregam*
- * Liana; corolla 30-45mm long; fruit 8 mm across 9. *Cladoceras*
9. Stipules divided into several thin lobes 10
- * Stipules entire or bilobed at the tip 11
10. Fruit obconic, with an enlarged calyx to 5cm across; calyx eccentric, with one coloured lobe 5. *Carphalea*
- * Fruit a small capsule, without an enlarged calyx; calyx with 5 green lobes 39. *Pentas* + 51. *Triainolepis* (bearded throat), *Rutidea orientalis* (western moist forest)
11. Flowers appearing before the leaves 12
- * Flowers appearing when leaves are present 13
12. Calyx truncate 10. *Coffea paolia*
- * Calyx lobed, the lobes 1.5-5mm long 15. *Feretia*
13. Leaves whorled in 3 to 6 per whorl 14
- * Leaves opposite 18
14. Leaves heath-like, 2-40 by 2-5mm 1. *Anthospermum*
- * Leaves larger 15
15. Stipules hairy within 47. *Rytigynia*

- * Stipules not densely hairy 16
- 16a. Flowers/fruits in dense globose heads 2. *Breonadia*
- b. Flowers/fruits solitary 45. *Rothmannia*
- c. Flowers/fruits in fascicles or cymes 17
17. Flowers/fruits in axillary fascicles 17. *Gardenia*
- * Flowers/fruits in terminal corymbs 38. *Pavetta*
18. Leaves with nodules, visible as black dots 19
- * Leaves without visible nodules 20
19. Corolla-lobes valvate in bud 42. *Psychotria*
- * Corolla-lobes contorted in bud 38. *Pavetta*
20. Stipules with a dense tuft of long hairs (over 1 mm) within, the hairs remaining when stipule is removed 21
- * Stipules hairy or glabrous, but not leaving a tuft when removed 23
21. Plant of littoral, near highwater mark; corolla lobes 6-11 18. *Guettarda*
- * Not plants of littoral; corolla lobes 5 22
22. Corolla glabrous or hairy, but not bearded at the throat; fruit less than 20mm long; domatia usually present on leaves 47. *Rytigynia*
- * Corolla bearded at the throat; fruit over 15mm long; domatia absent 54. *Vangueria*
23. Stipules large and leafy, over 1 cm wide 24
- * Stipules smaller, less than 1 cm wide 27
24. Stipules red, 35-75 by 25-50mm 30. *Mitragyna*
- * Stipules smaller, not red 25
25. Strand plant; stems densely pubescent 18. *Guettarda*
- * Inland plants, stems never densely hairy 26
26. Corolla hairy; 11-17cm long; leaves without black spots 28. *Leptactinia*
- * Corolla usually glabrous outside, less than 1.5cm long; leaves often with black spots 42. *Psychotria*
27. Leaves without conspicuous reddish veins 28
- * Leaves with conspicuous reddish midrib and veins 16. *Galiniera*, 19. *Heinsenia*, 7. *Chassalia umbraticola*, 43. *Psydrax parviflora*
28. Leaves more than 5 x as long as wide 29
- * Leaves less than 4 x as long as wide 30
29. Leaves over 5mm long (7-12 x 0.8-1.6 cm) 38. *Pavetta*
- * Leaves up to 5mm long 1. *Anthospermum*

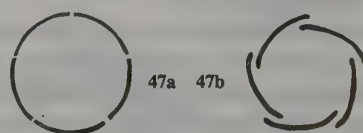
30. Flowers in dense globose heads, with the calyces joined; fruits more or less united
 33. *Nauclea*
 * Calyces not joined, and fruits not united 31
 31. Plants climbing 32
 * Erect trees or shrubs 39
 32. Some calyx lobes enlarged and brightly coloured
 32. *Mussaenda*
 * Calyx lobes green, subequal 33
 33. Inflorescences terminal 34
 * Inflorescences axillary 36
 34. Corolla tube longer than lobes; western Kenya 35

- * Corolla tube shorter than lobes; coast
 49. *Tarenna nigrescens*
 35. Fruit purple or black; stigma bifid
 7. *Chassalia cristata*



- * Fruit yellow or red; stigma fusiform
 46. *Rutidea*
 36. Flowers 9-27 mm long; fruit a capsule. Dry bushland
 36. *Paederia*
 * Flowers less than 12 mm long; fruit a berry or drupe 37
 37. Flowers/fruits in sessile clusters
 12. *Cremaspora*
 * Flowers/fruits in stalked cymes 38
 38. Inflorescence subumbellate 43. *Psydrax*
 * Inflorescence clearly branched 23. *Keetia*
 39. Calyx usually with at least one enlarged, coloured lobe 40
 * Calyx lobes (sub)equal 41
 40. Buds with filiform appendages at apex; fruit dry
 41. *Pseudomussaenda*
 * Buds without appendages; fruit fleshy
 32. *Mussaenda*
 41. Corolla bearded at throat 40. *Polysphaeria*
 + occ. 49. *Tarenna*, 52. *Tricalysia oval.*,
 38. *Pavetta*
 * Corolla not bearded at throat 42
 42. Inflorescence terminal, or on small spur shoots 43
 * Inflorescence axillary 60
 43. Leaves and flowers on short spur shoots 44
 * Flowers on normal leafy branches 46

44. Leaves obovate 6. *Catunaregam*
 * Leaves elliptic 45
 45. Flowers 1-2 per spur shoot, usually precocious, corolla 9-25mm long (coast) 15. *Feretia*
 * Flowers in inflorescences with more than 2 flowers; corolla less than 9.5mm long (inland) 49. *Tarenna*
 46. Flowers in dense, spike-like inflorescences
 21. *Hymenodictyon*
 * Flowers not in spikes 47
 47. Corolla-lobes valvate 48



- * Corolla-lobes contort 51
 48. Flowers yellow and orange, not heterostylous
 32. *Mussaenda arcuata*
 * Flowers white, or white and mauve, heterostylous 49
 49. Stipules entire or lobed, not becoming corky; fruit not dehiscent 42. *Psychotria*
 * Stipules entire, often becoming corky (on older wood); fruit more or less dehiscent 50
 50. Corolla tube over 4 mm, lobes 2-7 mm long
 7. *Chassalia*
 * Corolla tube 2.5-3.5mm, lobes 1.5-2 mm long
 8. *Chazaliella*
 51. Stipules divided in 2 lobes 20. *Heinsia*
 * Stipules entire or nearly so 52
 52. Stamens included (or only the top showing) 53
 * Stamens completely exerted 54
 53. Stipules sheathing, often truncate 17. *Gardenia*
 * Stipules scarcely sheathing, usually triangular
 45. *Rothmannia*
 54. Fruit a capsule with winged seeds; corolla tube 5-8 mm, lobes 1.5mm long 13. *Crossopteryx*
 * Fruit indehiscent, seeds not winged; corolla tube less than 3 x as long as the lobes 55
 55. Corolla lobes 6-7 26. *Lamprothamnus*
 * Corolla lobes 4-5 56
 56. Inflorescence a panicle or corymb 58
 * Inflorescence a few-flowered cyme or fascicle 57
 57. Flowers with developed pedicels
 6. *Catunaregam*

- * Flowers almost without pedicels **50. *Tennantia***
- 58.** Flower parts in 5 **49. *Tarennia***
- * Flower parts usually in 4 **59**
- 59.** Style split in 2 at apex **22. *Ixora***
- * Style entire **38. *Pavetta***
- 60.** Corolla-lobes valvate (see figure at 47) **61**
- * Corolla-lobes contort **70**
- 61.** Flowers heterostylous; style divaricate or lobed **62**
- * Flowers not heterostylous; style topped by a knob **64**
- 62.** Stipules hairy on the margins, or glabrous **11. *Craterispermum***
- * Stipules hairy all over **63**
- 63.** Flowers sessile **27. *Lasianthus***
- * Flowers in shortly stalked inflorescences **37. *Pauridiantha***
- 64.** Inflorescence umbellate, enclosed in bud by paired bracts **44. *Pyrostria***
- * Inflorescence never enclosed by paired bracts **65**
- 65.** Corolla lobes with acuminate tails **66**
- * Corolla lobes not tailed **67**
- 66.** Corolla tube 9-12 mm; lobes 6-8 mm long **25. *Lagynias***
- * Corolla tube 3-4 mm, lobes 3.5-5mm long **48. *Tapiphyllum* + 35. *Pachystigma***
- 67.** Style twice as long as corolla tube, stigmatic knob cylindric-oblong **68**
- * Style much less than twice the tube, stigmatic knob round **69**
- 68.** Anthers erect **23. *Keetia***
- * Anthers reflexed **43. *Psydrax***
- 69.** Calyx (almost) without a tubular part **4. *Canthium***
- * Calyx with a well-developed tubular part **31. *Multidentia***
- 70.** Plant near high tide mark; calyx truncate, corolla velvety-hairy, 6-11-lobed **18. *Guettarda***
- * Characters different **71**
- 71.** Leaves subsessile, with (sub)cordate base; inflorescences subterminal panicles **26. *Lamprothamnus***
- * Leaves usually petiolate; inflorescence truly axillary **72**
- 72.** Corolla tube over 30mm long **73**
- * Corolla tube less than 30mm long **74**
- 73.** Flowers solitary (coastal forest) **14. *Didymosalpinx***
- * Flowers in inflorescence **34. *Oxyanthus***
- 74.** Flowers in large, 5-14 cm long panicles **24. *Kraussia***
- * Flowers in smaller inflorescences (rarely, in *Tarennia*, in lax corymbs) **75**
- 75.** Corolla tube ca. 1 mm long, lobes 5-10mm **16. *Galiniera***
- * Corolla tube over 3 mm long **76**
- 76.** Flowers in sessile clusters (coastal forest) **12. *Cremaspora***
- * Flowers in stalked cymes or fascicles **77**
- 77.** Corolla lobes longer than tube **78**
- * Corolla lobes shorter than tube **79**
- 78.** Pedicel obscured by bracts; calyx split on one side **3. *Calycosiphonia***
- * Pedicel partly visible; calyx hardly developed **10. *Coffea***
- 79.** Bracteolar cup present at base of calyx **52. *Tricalysia***



- * Bracteolar cup absent **80**
- 80.** Flowers in fascicles, 1-2 in number **17. *Gardenia transvenulosa***
- * Flowers in cymes or corymbs **81**
- 81.** Corolla hairy outside **19. *Heinsenia***
- * Corolla glabrous outside **49. *Tarennia***

1. ANTHOSPERMUM

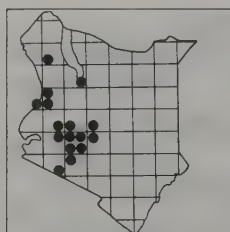
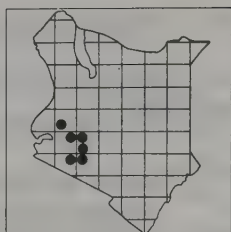
Leaves opposite or whorled; stipule-sheath adnate to petiole. Flowers axillary, sessile, dioecious or hermaphrodite.

- 1.** Leaves 2-13mm long, with inrolled margins **1. *A. usambarense***
- * Leaves (7) 15-40mm long, flat **2. *A. welwitschii***

1. *Anthospermum usambarense* K. Schum.

Shrub 0.5-3(4.5)m. Leaves heath-like, whorled in 4-6, linear, 2-15 by 2-5mm but often with inrolled margins and appearing very narrow, glabrous or with hairy midrib. Flowers greenish, dioecious, in sessile axillary clusters; corolla 0.6-3.5mm. Fruit 1.5-2mm long.

K123456; 1950-3900m; I-II, V, VII-XI

*Anthospermum usambarense**A. welwitschii*

Heath zone or moorland or mountains; also on rocky hills in grassland or bushland; rarely in forest margins. Mangwe (SWA), Olkibechus-orok (MAA).

2. *Anthospermum welwitschii* Hiern

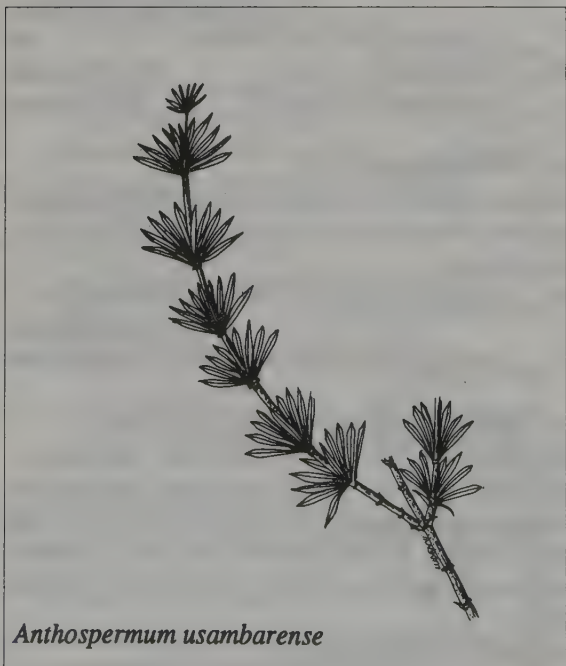
(*A.sp.* of KTS)

Herb or shrub 0.2-2.4m. Leaves opposite, but often appearing whorled because of many short shoots; leaves linear, 7-40 by 0.8-5mm, glabrous or nearly so. Flowers greenish cream, in (sub) sessile axillary clusters; corolla 1-3mm. Fruit 2mm long.

K(1)3(4)6; 1650-2550m; I, III, VII*

Grassland, *Tarchonanthus* bushland, often in rocky sites.

Entarakwaekop (MAA).

*Anthospermum usambarense**Breonadia microcephala*

2. BREONADIA

Leaves whorled. Inflorescence globose, with densely packed flowers.

Breonadia microcephala (Del.) Ridsdale

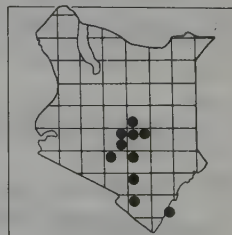
[*Adina microcephala* (Del.) Hiern, *Breonadia salicina* Hepper & Wood]

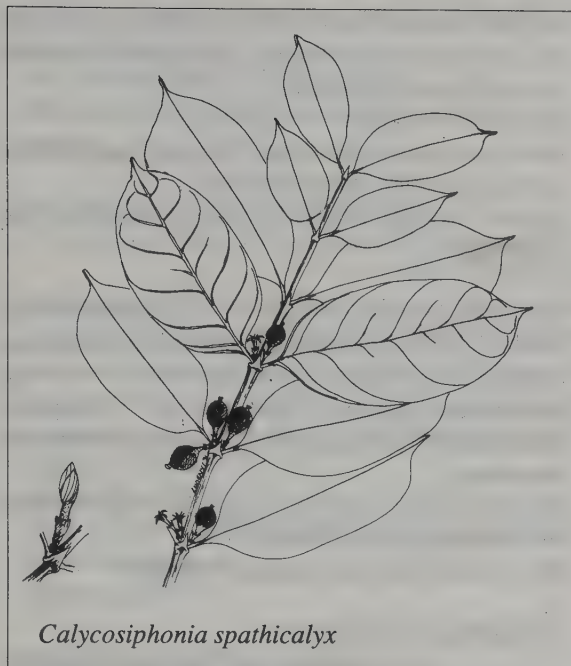
Tree 5-24m, evergreen; bark greybrown, scaly. Leaves in whorls of 3-4, (narrowly) elliptic, base attenuate, apex obtuse (and occasionally slightly acuminate), 7-33 by 2-6cm, glabrous. Flowers white, in stalked globose heads to 2.5cm across; corolla 4-9mm long. Fruit a capsule splitting in two, to 3.5mm long.

K47; 50-1450m; II-III, VII-VIII, X*

Riverine, often in rocky sites with its roots in water.

Adina (STAND), Mulamandia (KAM), Muchuguthii (KIK).

*Breonadia microcephala*



3. CALYCOSIPHONIA

A genus closely allied to *Coffea*.

Calycosiphonia spathicalyx (K. Schum.) Robbrecht
Shrub or tree 2-8.5m. Leaves elliptic, base cuneate or obtuse, apex acute or acuminate, 6.5-19 by 2.3-7cm, glabrous. Flowers white, 1-3 per axil; corolla tube 7-14mm, lobes 10-17mm long. Fruit red, elliptic, 9-13mm long, 2-seeded.

K7; collected in Shimba Hills forest at 375 m;*

4. CANTHIUM

Flowers in axillary cymes or fascicles. Fruit 1-or 2-seeded, fleshy, edible.

The former genus *Canthium* sensu lato has been split up into several smaller genera, for which an artificial key follows. This key is only valid for Kenya!

1. Leaves on spurs; spines present
 4. *Canthium glaucum*
- * Spines absent, or if present, leaves spaced 2
2. Leaves restricted to new growth or short spurs; inflorescence at naked nodes 3
- * Leaves well spaced; inflorescence at leafy nodes 6

3. Stipules not sheathing at base 4
- * Stipules sheathing at base 5
4. Stipules pubescent within, usually becoming corky **4. *Canthium***
- * Stipules glabrous, not becoming corky **43. *Psydrax lividum***
5. Leaves with obscure tertiary venation; spines often present **4. *Canthium oligocarpum***
- * Leaves with clear tertiary venation; spines absent **31. *Multidentia***
6. Inflorescence enclosed in bud by 2 persistent bracts **44. *Pyrostria***
- * Inflorescence without persistent bracts 7
7. Inflorescence hardly branched, umbellate 8
- * Inflorescence clearly branched 9
8. Leaves hardly shiny; stigma globose, at throat level **4. *Canthium***
- * Leaves shiny; stigma cylindrical, exserted **43. *Psydrax***
9. Spines often present, stipules sheathing **4. *Canthium oligocarpum***
- * Spines absent, stipules not sheathing 10
10. Tree 7-24m **43. *Psydrax parviflora***
- * Climbers or shrubs **23. *Keetia***

The following key is for the genus *Canthium* itself.

1. Plants spiny 2
- * Plants unarmed 3
2. Dry forest/bushland species found below 1000m; corolla less than 3mm long, fruit less than 12mm long **3. *C. glaucum***
- * Moist forest species (1700-2350m); corolla about 9mm, fruit 13-17mm **8. *C. oligocarpum***
3. Young branches glabrous 4
- * Young branches hairy 9
- 4a- Leaves sandpapery on midrib and margins (coastal) **11. *C. robynsianum***
- b- Leaves softly hairy, at least on midrib, and broadly ovate **6. *C. lactescens***
- c- Leaves glabrous (except for domatia) 5
5. Inland forest species, above 1400m 6
- * Coastal species (including Maungu Hills, about 1000 m) 7
6. Stipules 8-9mm long; dry forest around Nairobi/Machakos **4. *C. keniense***
- * Stipules 3-4mm long; moist forest (Mt. Kenya, Aberdares, Ngong) **8. *C. oligocarpum***

7. Leaves with hairy domatia; stipules 3-4mm long **10. *C. pseudoverticillatum***
 * Leaves completely glabrous; stipules 8-11mm long **8**
8. Stipules 5-6mm long **5. *C. kilifiensis***
 * Stipules 8-11mm long **7. *C. mombazense***
9. Coastal species **10**
 * Inland species, found above 750m **11**
10. Stipules 8-11mm long; leaves leathery, 2.5-13 by 1.5-6cm **7. *C. mombazensis***
 * Stipules 3-4mm long; leaves papery, 1-3 by 0.4-1.5cm **12. *C. setiflorum***
11. Leaves 6-16 by 4-14cm; stipules ovate **6. *C. lactescens***
 * Leaves smaller than 6 by 2.5cm; stipules linear **12**
12. Leaves 2-6 by 1-2.5cm; Ngomeni and Thika **2. *C. fadenii***
 * Leaves 1-3 by 0.4-2cm; rocky sites in ever-green bushland **13**
13. Leaves glabrous or nearly so **1. *C. dyscriton***
 * Leaves pubescent **9. *C. pseudosetiflorum***

1. *Canthium dyscriton* Bullock

Shrub or small tree, size unknown. Leaves elliptic, base rounded, apex rounded, 1-3 by 0.5-2cm, glabrous

(except base and midrib). Flowers pale green, 2-3 per axil; corolla about 3mm long. Fruit brown, ellipsoid, 2-seeded, about 9mm long.

K47; 750-1600m; IX*

Rocky outcrops; known from Taita and Sagalla Hills, and from Tututha Hill in Mbooni.

Kikukwi (KAM), Kirurawai (TAI). Wood used for arrow heads.

2. *Canthium fadenii* Bridson VULNERABLE

Shrub 2.5-4.5m. Leaves elliptic, base cuneate or rounded, apex obtuse or rounded, 2-6 by 1-2.5cm, pubescent or glabrous. Flowers white, 2-4 per axil; corolla about 3mm long. Fruit ellipsoid, 2-seeded, 8-9mm long.

K4; only known from Thika, along the Chania River and Ngomeni; 1450-1500m; I, III*

Dry riverine forest and adjacent bushland.

3. *Canthium glaucum* Hiern

VULNERABLE, ?ENDANGERED

Shrub or tree 2-6m; branches with pairs of opposite spines (1-2cm long) above the nodes. Leaves on short spurs, elliptic, base cuneate, apex obtuse, 1.5-6 by 1-3cm, glabrous or nearly so except for the domatia. Flowers white, in umbellate cymes to 1cm long; corolla 2-2.5mm long. Fruit obliquely ellipsoid, about 1cm long.

K4: ssp. *frangula*, known from Meru N.P. at 790m in *Combretum* bushland; XI*

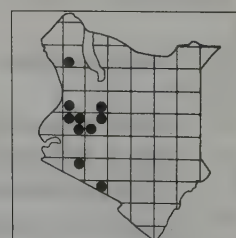
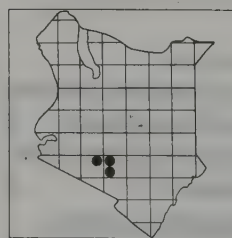
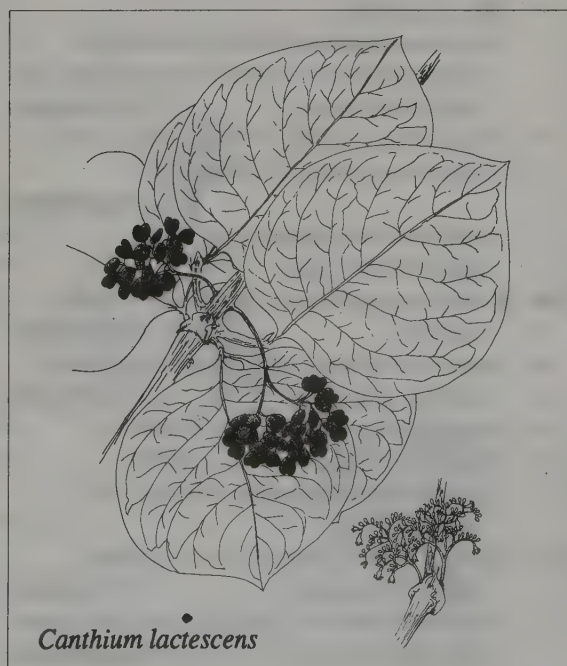
K7: ssp. *glaucum*, known from Arabuko-Sokoke forest and Mangua; III*

Mtengeji (SWA), Mfuranje (GIR). The fruit is edible.

4. *Canthium keniense* Bullock

RARE

Shrub or tree 1.6-6m. Leaves elliptic, base cuneate, apex short-acuminate, 5-15 by 2.5-7.5cm, glabrous except for domatia. Flowers yellow-green, in cymes to 3cm long; corolla about 5mm long. Fruit usually 2-



seeded, ellipsoid and more or less heart-shaped, 10-12mm long.

K4; 1400-1800m; IV, VIII, XI-XII*

Dry upland forest; endemic to Nairobi-Machakos forests.

5. *Canthium kilifiensis* Bridson ined.

[*C. keniense* sensu KTS, *C. siebenlistii* sensu KTS]

VULNERABLE

Shrub or tree 2-6m. Leaves ovate or elliptic, base cuneate or rounded, apex obtuse or bluntly acuminate, 6-13 by 3.5-8cm, glabrous. Flowers (sometimes present when leafless) greenish, in dense cymes to 1cm across; corolla 3-4mm long. Fruit heart-shaped, (1)2-seeded, 10-12mm long.

K7; 1-500m; III-IV*

Brachystegia woodland; endemic to Arabuko-Sokoke forest and Mangua.

Mfupapu (SWA).

6. *Canthium lactescens* Hiern

Tree 3-12m; bark rough, grey. Leaves broadly ovate or broadly elliptic, base (abruptly) cuneate, apex shortly acuminate, 6-16 by 4-14cm, pubescent or (more often) almost glabrous (except midrib, veins, domatia). Flowers cream, in cymes to 3cm long; corolla 4-5mm long. Fruit 1(2)-seeded, ellipsoid, 8-10mm.

K1236; 1200-2350m; I-II, V-VI, IX-X*

Evergreen bushland on rocky sites, often in ravines or gullies.

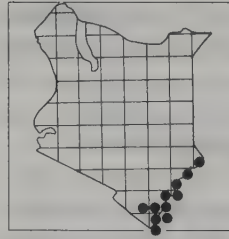
Kimolwet (KIP), Kunkomwo (LUH), Olkumi, Olmaldei (MAA), Kaibetwa, Kerbatwa (MAR), Komolwo/Buterwo (PKT), Larugach (SAM), Keipetwo (TUG), Amalerh (TUR). The fruit is edible; the wood is termite-resistant.

7. *Canthium mombazense* Baill.

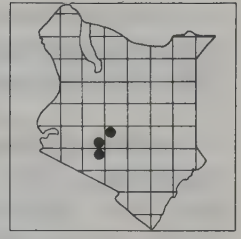
[incl. *C. pallidum* (K. Schum.) Bullock, *C. inopinatum* Bullock]

Shrub or tree 1-7.5m; bark greybrown, smooth or fissured. Leaves leathery, elliptic, base cuneate or rounded, apex obtuse, 2.5-13 by 1.5-6cm, glabrous (rarely pubescent or scabridulous). Flowers white or yellow(-green), several per fascicle, corolla about 3mm long. Fruit yellow, 1-seeded, about 8mm long. K7; 1-450 (-1000)m; III, V-XII.

Forest; also in *Brachystegia* woodland, thickets, and dense woodland/bushland.



Canthium mombazense



Canthium oligocarpum

Mfupapu, Kifuwahe (SWA), Mufudzo (GIR). Wood used for building poles.

8. *Canthium oligocarpum* Hiern ssp. *friesiorum* (Robyns) Bridson

(*Rytigynia friesiorum* Robyns)

Shrub or tree 1-7.5m; older wood often, but not always, with spines (to 2cm) in pairs, threes, or fours. Leaves opposite or whorled in 3 or 4, elliptic, base cuneate or rounded, apex shortly and bluntly acuminate, 2.5-7 by 1.3-3.3cm, glabrous except for domatia. Flowers white or cream, in cymes to 3cm long; corolla about 9mm long.

Fruit 1(2)-seeded, obliquely ellipsoid, 13-17mm long. K46; 1700-2350m; II-IV, X, XII*

Moist (*Ocotea*) forest.

Murera-Kimbu, Mubirubiru (KIK), Mugiri (MER).

Another subspecies (ssp. *oligocarpum*) occurs in K5. I have not seen the single collection, Kerfoot 4551, but I believe this comes from the SW Mau. The leaves are more acuminate at the apex.

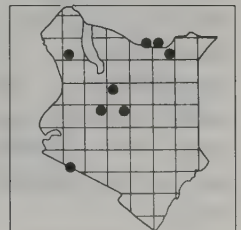
9. *Canthium pseudosetiflorum* Bridson

ssp. *pseudosetiflorum*

(*C. setiflorum* sensu KTS)

Shrub 1-3m. Leaves elliptic, base cuneate or obtuse, apex acute or obtuse, 1.2-3 by 0.4-1.5cm, short-pubescent. Flowers cream or yellowgreen, in few-flowered cymes or fascicles to 1cm, corolla about 3mm long. Fruit 2-seeded, about 9mm long.

K1236; 750-1750m; I-IV, VII, IX-X*



Canthium pseudosetiflorum

In rocky sites in evergreen bushland or dry woodland. Ladana (BOR), Natanna (SOM), Etoukoro, Lotoukora (TUR). The fruit is edible.

10. *Canthium pseudoverticillatum* S. Moore

Tree 4.5-6m. Leaves elliptic, base cuneate, apex acute, 3-8 by 1-3.5cm, glabrous except for domatia. Flowers greenish cream, in dense cymes to 1cm; corolla about 3mm long. Fruit 2-seeded, heart-shaped, about 9mm long.

K7? - two sterile collections from Boni forest (Muchiri 443, Kuchar 13528) are probably this species.

11. *Canthium robynsianum* Bullock

(*C. pseudoverticillatum* sensu KTS, p.p.)

RARE, ?VULNERABLE

Shrub or tree 2-4.5m. Leaves elliptic, base cuneate, apex short-acuminate, 3-8 by 1.5-4.5cm, glabrous but for scabrid midrib and margins. Flowers white, in dense cymes to 1cm; corolla about 3mm long. Fruit 1-seeded, obliquely ellipsoid, about 1cm long.

K7; 1-50m; III*

Brachystegia woodland; Witu and Arabuko-Sokoke. Mkumba-ngombe (SWA).

Note. A species close to *C. robynsianum* has been found in Boni.

12. *Canthium setiflorum* Hiern

ssp. *telidosma* (K. Schum.) Bridson ined.

Similar to *C. pseudosetiflorum*.

Reported from K7, Mrima Hill and Dzombo Mt., in forest or thicket.

5. CARPHALEA

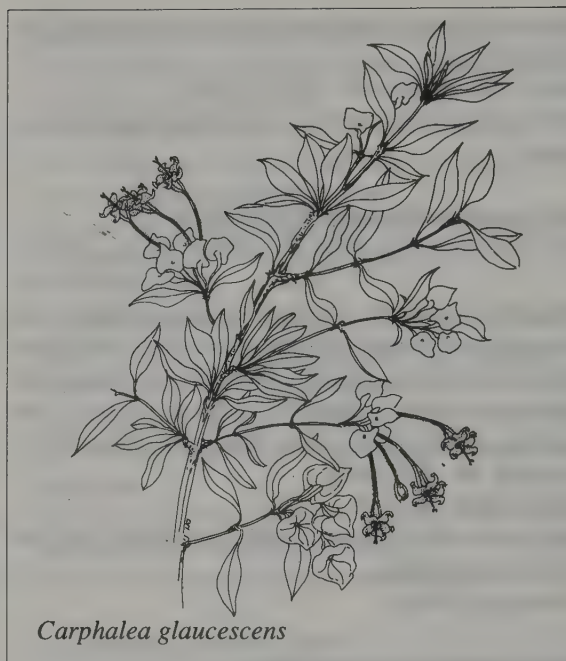
Stipules with 3-5 filiform lobes. Flowers dimorphic. Corolla tube long and narrow. Fruit with a much enlarged calyx.

***Carphalea glaucescens* (Hiern) Verdc.**

ssp. *glaucescens*

[*Dirichletia glaucescens* Hiern, *D.sp.* of KTS]

Shrub 0.5-3m. Leaves elliptic, base cuneate, apex obtuse or acute, 1-7 by 0.4-2.5cm, glabrous or somewhat sandpapery. Flowers white, pale pink, or pale purple, in dense terminal cymes; corolla tube 12-40mm, lobes 3.5-6mm long. Fruit obconic, 4-8mm long, with an enlarged greenish-purple calyx to 5cm across.

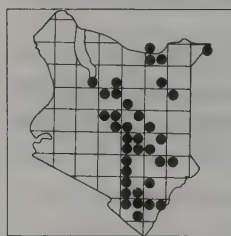


Carphalea glaucescens

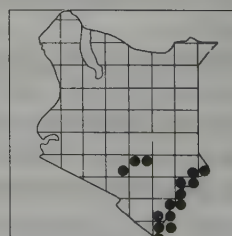
K147: 50-1300m; I-VI, VIII-XII (III-V, XI-XII)

Dry bushland (*Acacia-Commiphora* or *Terminalia* type), often in rocky sites.

Burbur (BOR), Mukala/Mutula ivindi (KAM), Dirrin (ORM), Burbur, Garta (SOM), Ibulutu (TAI).



Carphalea glaucescens



Catunaregam nilotica

6. CATUNAREGAM

Spines opposite or solitary. Leaves on shortshoots. Flowers in terminal cymes. Fruits fleshy.

1. Leaves obovate

1. *C. nilotica*

* Leaves elliptic, very rarely obovate

2. *C. spinosa*

1. *Catunaregam nilotica* (Stapf) Tirvengadam

[*Xeromphis nilotica* (Stapf) Keay]

Shrub or tree 2-6m with arching branches; spines

*Catunaregam nilotica*

solitary, 1-3.5cm long, often dark-tipped. Leaves on spur shoots, obovate, base attenuate, apex rounded or emarginate, 1-7 by 0.5-3cm, glabrous or densely pubescent. Flowers white, fading to yellow, 1-2 per spur shoot; corolla tube 4-5mm, lobes 5-10mm long. Fruit yellow-brown, round or ellipsoid, 13-25mm long. K47; 1-1200m; I-II, X, XII*

Wooded grassland, coastal bushland, palm woodland. Mtengeji (SWA), Kokonya (BON), Mzongozongo (DIG), Mulului (KAM), Kichua (SOM), Mlateye (TAI). The roots and/or fruit are used as a soap substitute. Good firewood.

2. *Catunaregam spinosa* (Thunb.) Tirvengadam
ssp. *spinosa*

[*Xeromphis* sp. of KTS, *Xeromphis obovata* of list]
Shrub or tree 2-7.5m; branches (in Kenya) usually unarmed, rarely with alternate spines to 3cm. Leaves elliptic, base cuneate, apex acute or obtuse, 2-8 by 1-4cm, sparsely pubescent or glabrous except for domatia. Flowers (yellowish) white, few in terminal fascicles or short cymes; corolla tube 4-6mm, lobes 6-10mm long. Fruit round or ellipsoid, 18-35mm long. K7; 1-500m; -*

(Riverine) forest (Mrima Hill, Diani forest, Mangea, Wema on Tana R.).

7. CHASSALIA

Flowers in branched panicles, often with subcapitate elements. Corolla white, often purplish-tinged or -tipped. Fruits succulent, 2-seeded.

1. Plants of coastal strip, below 500m

6. *C. umbraticola*

* Inland plants, found above 1000m **2**

2. Liana; corolla lobes 2mm; western Kenya

1. *C. cristata*

* Shrub; if western species, corolla lobes more than 4mm long **3**

3. Stipules 3-4mm, persistent and becoming corky **4**

* Stipules 1-2mm, not becoming corky **5**

4. Corolla tube 12-21mm long; Taita Hills

2. *C. discolor*

* Corolla tube 5-6mm long; Mau

5. *C. subochreatea*

5. Corolla tube 5-14mm long; fruit 2-lobed; central Kenya

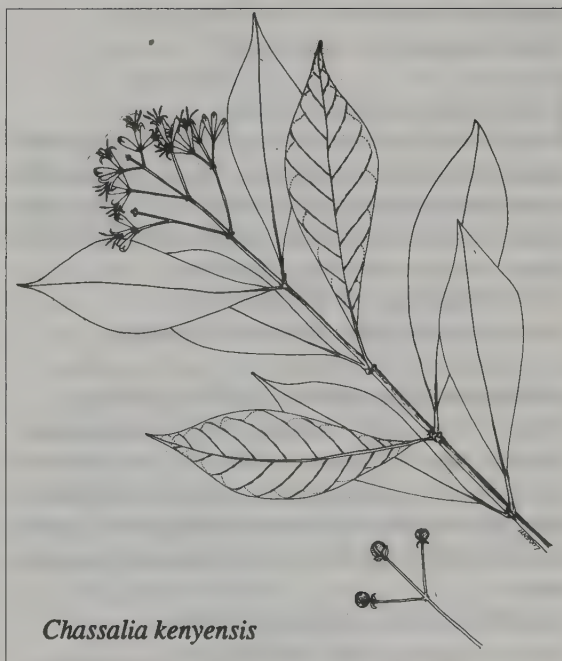
3. *C. kenyensis*

* Corolla tube 4-6mm long; fruit not lobed; Taita Hills

4. *C. parviflora*

1. *Chassalia cristata* (Hiern) Bremek.

Climbing shrub 2-6m. Leaves elliptic, base cuneate, apex acuminate, 8-15 by 2.5-6.5cm, glabrous. Flow-

*Chassalia kenyensis*

ers white with mauve tinge, in dense many-flowered panicles 3-7.5cm long; corolla tube 5-10mm, lobes 2mm long. Fruit purple or black, round, 5-6mm.

K35; 1350-1650m; III-VI, IX*

Rainforest: Kakamega and Bukuria.

Munamuveka (LUH).

2. *Chassalia discolor* K. Schum. ssp. *taitensis* Verdc.
(*C. violacea* of KTS) RARE

Shrub 1-3m. Leaves obovate, base cuneate, apex acuminate, 5-14 by 2.5-6cm, glabrous. Flowers white with mauve at the apex, in several-flowered panicles; corolla tube 12-21mm, lobes 2-4mm long. Fruit white, reddish or purple-black, round or two-lobed, 5-6mm long.

K7; 1450-1900m; IV-V, VII, X-XI*

Moist evergreen forest: Taita Hills.

Mwalafichu (TAI).

3. *Chassalia kenyensis* Verdc.

(*C. subochreate* of KTS, p.p.)

Shrub 1.8-2m, occasionally somewhat scandent. Leaves elliptic, base cuneate, apex acuminate, 5-14 by 1.5-5cm, glabrous. Flowers white, tipped with purple, in panicles with small dense heads; corolla tube 5-14mm; lobes 3-4mm long. Fruit dark red to purple, 2-lobed, 4-5mm long.

K4; 1650-2300m; II-III, VIII, XII*

Moist evergreen (*Ocotea*) forest.

4. *Chassalia parvifolia* K. Schum.

Shrub 2-4m. Leaves elliptic, base cuneate, apex acuminate, 2-9 by 1-3.5cm, glabrous. Flowers white, often tipped with pink, in small panicles with dense sub-heads; corolla tube 4-6mm, lobes 2mm long. Fruit black, round or ellipsoid, 4-5mm long.

K7; 1400-1950m; VII-IX, XI-XII*

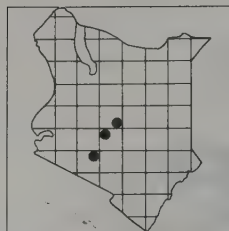
Evergreen mist forest: Taita Hills, Kasigau.

5. *Chassalia subochreate* (De Wild.) Robyns

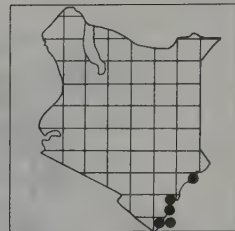
Shrub or tree 3-6m. Leaves elliptic, base cuneate-attenuate, apex acuminate, 4-14 by 1.5-5cm, glabrous. Flowers white, often tinged or tipped with pink, in panicles with dense sub-heads; corolla tube 5-6mm, lobes 3-4.5mm long. Fruit black, ellipsoid, 4.5-6.5mm long.

K5; 1800-2250m; I, III-IV, VI-VII*

Moist evergreen forest: SW Mau area.



Chassalia kenyensis



Chassalia umbraticola

Muriandoi, Lusiluru (MER), Katarombechet (KIP).

6. *Chassalia umbraticola* Vatke ssp. *umbraticola*
(*Chassalia albiflora* sensu KTS)

Shrub 1-5m (once reported as scrambling), evergreen. Leaves elliptic, base cuneate, apex acute or slightly acuminate, 4-16 by 1.5-6cm, glabrous. Flowers as well as inflorescence white tinged with purple; flowers in panicles; corolla 15-20mm, lobes 5-7mm long. Fruit violet to black, round or ellipsoid, 4-7mm long.

K7; 1-450m; I-IX, XI-XII

Evergreen forest, *Brachystegia* woodland, coastal bushland.

Mwango, Mpelepele (SWA), Mbogaboga (DIG), Mbanj, Mnau (GIR).

8. CHAZALIELLA

***Chazaliella abrupta* (Hiern) Petit & Verdc.**

(*Psychotria abrupta* Hiern)

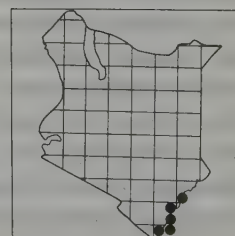
Shrub 1-3m, with pale grey cork-covered stems. Leaves elliptic to slightly ovate, base cuneate, apex acute to acuminate, 0.8-15 by 0.4-6cm, usually glabrous; domatia often present. Flowers yellow, in small stalked terminal heads; corolla tube 2.5-3.5mm, lobes 1.5-2mm long. Fruit black, ellipsoid, 6-9.5mm long.

- var. *abrupta*: leaves thin, usually acuminate.

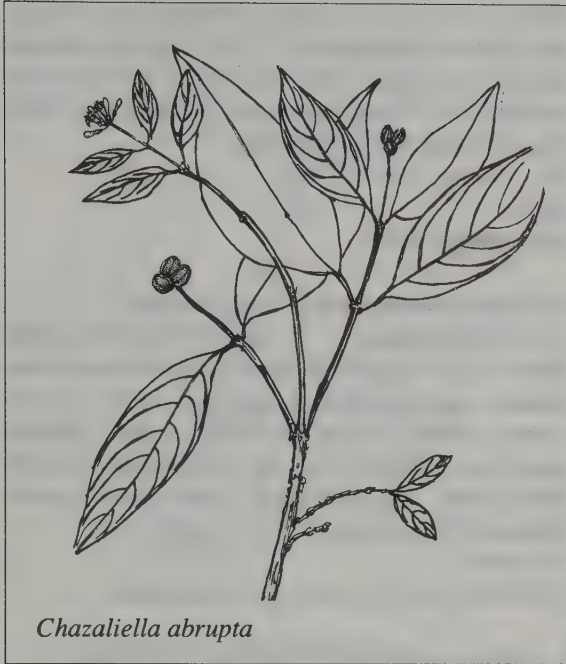
K7; 1-500m; III-IV*

Evergreen forest and coastal thicket.

- var. *parvifolia* Verdc.: leaves rather thick, usually blunt or acute, up to 5 by 2cm.



Chazaliella
abrupta



K7; 1-450m; III-IV*

Evergreen forest, *Brachystegia* woodland. Mfiyofiyo (SWA), Mucherere, Mukuru, Mbogaboga (GIR).



9. CLADOCERAS

Some axillary branchlets reduced to recurved spines.

Cladoceras subcapitatum (K.Schum. & K. Krause) Brem.

Small climber (to 2 m?) with square stems. Leaves elliptic, base cuneate, apex acute or shortly acuminate, 5-12 by 2-3.5cm, glabrous, shiny. Flowers white, in dense terminal corymbs; corolla tube 25-35mm, lobes 6-7mm long. Fruit round, 8mm across.

K7; Rabai (anno 1933), Gongoni (1990, Luke 2424).

10. COFFEA

Flowers axillary. Fruit a drupe, 2-seeded.

- | | |
|--|---------------------------------|
| 1. Dry bushland species, with leaves on short spurs | 5. <i>C. rhamnifolia</i> |
| * Forest species, with spaced leaves | 2 |
| 2. Coastal species found below 500m | 3 |
| * Inland species found above 1000m | 4 |
| 3. Flowers 5-merous; peduncle less than 2mm long | 6. <i>C. sessiliflora</i> |
| * Flowers 6-8-merous; peduncle 2-6mm long | 4. <i>C. pseudozanguebarica</i> |
| 4. Leaf apex obtuse or rounded; corolla tube 3mm; Taita Hills | 3. <i>C. fadenii</i> |
| * Leaf apex acuminate; corolla tube 5.5-10mm | 5 |
| 5. Flowers 2-20 per axil; fruit 1-2cm long; Marsabit | 1. <i>C. arabica</i> |
| * Flowers 1-2(5) per axil; fruit 0.8-1cm long; Central/W Kenya | 2. <i>C. eugenioides</i> |

1. *Coffea arabica* L.

Shrub or tree 3-6m. Leaves elliptic, base cuneate, apex acuminate, 7-18 by 3-7.5cm, glabrous. Flowers white, 2-20 per axil; corolla tube 9-16mm long. Fruit red, ellipsoid, 1-2cm long.

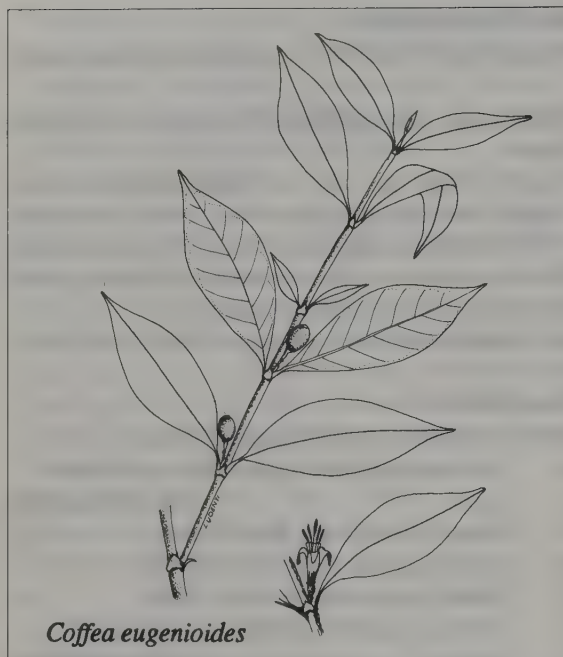
K1; 1350-1500m; V, VIII* (fr. VII-VIII*)

Forest on Marsabit (wild populations).

Arabica coffee (TRADE), Kaawa (KAM), Kahua (KIK). This species is cultivated all over Kenya, including (alas) at Marsabit.

2. *Coffea eugenioides* S. Moore

Shrub or tree 1.4.5 (-12?)m. Leaves elliptic, base cuneate, apex acuminate, 2-12 by 1.5.5cm, glabrous. Flowers white or cream, 1-2(-5) per axil; corolla tube 5.5-10mm, lobes 5-12mm long. Fruit red, ellipsoid, 8-10mm long.



K3456; 1450-2250m; I-IV*

Forest.

Nandi coffee (STAND), Mukondwe (KIK), Shimwani, Shungung'ng'ung'ani (LUH), Sigeribangi (NAN).

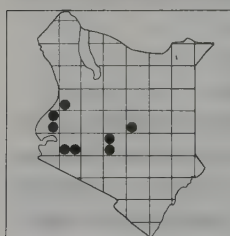
3. *Coffea fadenii* Bridson **VULNERABLE**
Tree 5-15m; bark brown, fibrous. Leaves broadly elliptic, base acute or obtuse, apex obtuse or rounded, 6-15 by 4-8cm, glabrous (except sometimes the domatia). Flowers white, 1-3 per axil (rarely on old wood); corolla tube 3mm, lobes 9mm long. Fruit obovoid, 16-22mm long.

K7; 1400-1800m; I*

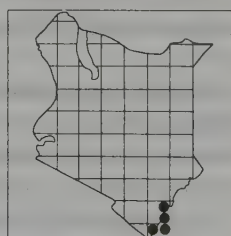
Endemic to Mbololo Forest in Taita Hills.

4. *Coffea pseudozanguebariae* Bridson

[*C. pseudozanguebarica* of KTS]



Coffea eugenoides



Coffea pseudozanguebariae

Shrub 2-4.5m. Leaves (broadly) elliptic, base cuneate, apex obtuse or acuminate, 5-12.5 by 3-6.5cm, glabrous but for the domatia. Flowers white, 1-2(-5) per axil; corolla tube 7-12mm long, lobes 10-14mm long. Fruit ellipsoid, beaked, 8-11mm long.

K7; 1-450m; I, III, XI-XII*

Forest.

Mperamwitu (DIG).

5. *Coffea rhamniphylla* (Chiov.) Bridson

[*C. paolia* Bridson]

VULNERABLE

Shrub 1-3m. Leaves on short spurs, obovate, base cuneate, apex rounded to apiculate, 0.9-2 by 0.7-1.4cm, glabrous except for midrib above. Flowers precocious, white, solitary on spurs; corolla tube 8-12mm, lobes 12-23mm long. Fruit yellow or red, ellipsoid, 8-9mm long.

K7; 95 m; -*

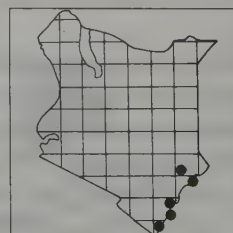
Collected twice N of Hola, in dry bushland.

6. *Coffea sessiliflora* Bridson ssp. *sessiliflora*

Shrub 1.4.5m. Leaves elliptic, base cuneate, apex acute or shortly acuminate, 4.5-12 by 1-6cm, glabrous (except sometimes for domatia). Flowers white, 1-2 per axil; corolla tube 10-14mm, lobes 13-16mm long. Fruit black, ellipsoid, 8-12mm long.

K7; 1-500m; III, VIII, X-XI*

Forest.



Coffea sessiliflora

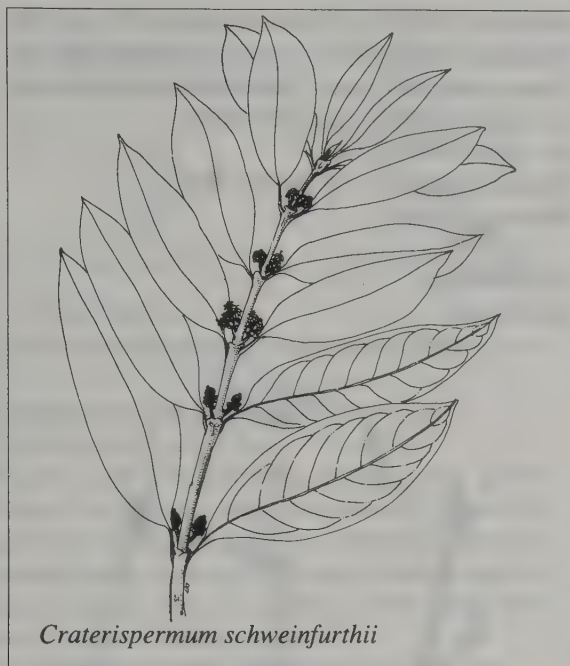
11. CRATERISPERMUM

Stipules forming a short tube. Flowers in cymes. Fruit 1-2-seeded.

***Craterispermum schweinfurthii* Hiern**

(*C. laurinum* sensu KTS)

Shrub or tree 1.5-15m; bark greyish white, warty. Leaves yellow-green, elliptic or obovate, base cuneate, apex obtuse or shortly acuminate, 7-17 by 2-7cm, glabrous. Flowers white, in compact supra-axillary cymes, corolla tube 3.5-5.5mm long. Fruit black,



ellipsoid, 5-6mm long.
K5, Kakamega Forest.
Murengeritsa (LUH)

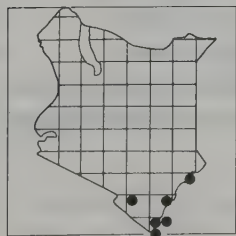
12. CREMASPORA

Leaves at base of side-branches small and rounded or reniform. Flowers in sessile axillary clusters. Fruit 2-seeded.

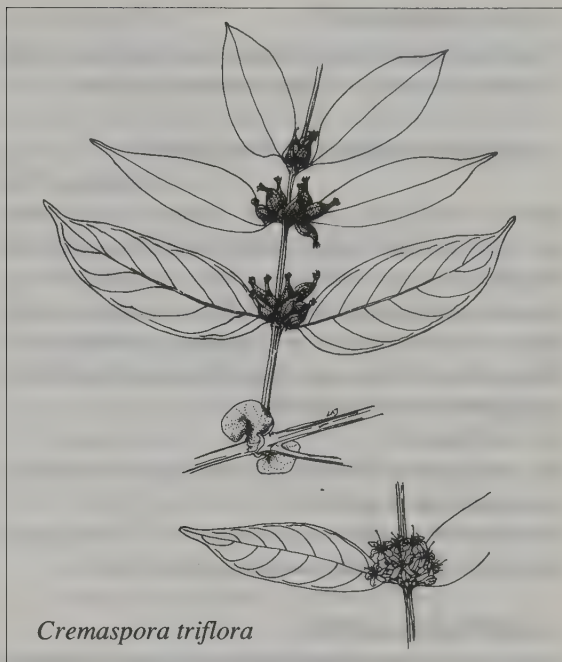
Cremaspora triflora (Thonn.) K.Schum.
ssp. *confluens* (K.Schum.) Verdc.

Shrub or tree, sometimes climbing, 1.5-7m, evergreen. Leaves elliptic, base cuneate or rounded, apex acuminate, 6-18 by 2.5-9cm, glabrous or pubescent beneath. Flowers white, in dense clusters; corolla tube 3-5.5mm, lobes 3-7mm long. Fruit dark purple, ovoid, 7-15mm long, with a persistent calyx.
K7; 1-500m; VIII-IX, XII*

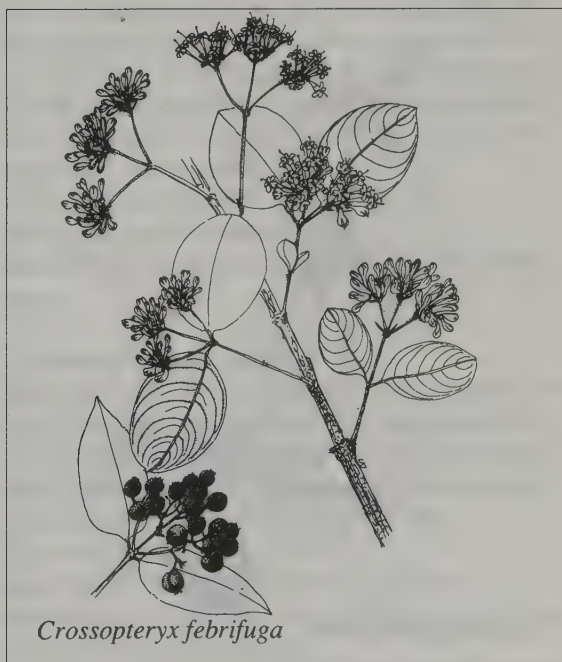
Forest or thicket.



Cremaspora triflora



- ssp. *triflora* has been found in the Taita Hills, in forest along the Mwatate river.
Mchesi (SWA), Mtsonga nyomba (DIG), Sasatcha (SAN). Used for building poles. Fruit edible.



13. CROSSOPTERYX

Flowers in dense terminal corymbose panicles. Fruit a capsule, splitting in 2, few-seeded; seeds flat.

Crossopteryx febrifuga (G.Don) Benth.

Figure p. 511

Shrub or tree 1.5-6(15)m with rounded crown; bark pale grey or dark brown, finely reticulate. Leaves elliptic, (ob-)ovate or almost round, 3-13 by 1.5-8cm, glabrous to densely velvety. Flowers white or pale yellow, in dense panicles to 10cm long; corolla tube 5-8mm, lobes 1.5mm long. Fruit dark purple or black, (sub) globose, 6-10mm across.

K7; 1-450m; II*

Wooded grassland, forest/thicket margins, *Brachystegia* woodland: South coast.

Mzwale (SWA), Mtsonga mwiko (DIG). Wood hard, fine-textured, durable, used for implements.

14. DIDYMOSALPINX

Often with pairs of supra-axillary spines. Flowers solitary, axillary. Fruit several-seeded, seeds flattish.

Didymosalpinx norae (Swynnerton) Keay

Shrub 2-4m; spines to 2cm but not always present in dried collections. Leaves elliptic, base cuneate, apex

acuminate, 6-16 by 2.5-6cm, glabrous but for the domatia. Flowers white, 1 per axil; corolla tube 45-75mm, lobes 15-25mm. Fruit white with green lines, ellipsoid, 30-40mm long, 10-ribbed.

K7; 100-450m; I, IV*

Forest (Mrima Hill and Shimba Hills).

Muruwana (DIG).

15. FERETIA

Fruit fleshy.



Feretia apodanthera



Didymosalpinx norae

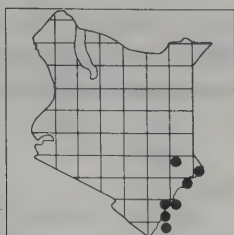
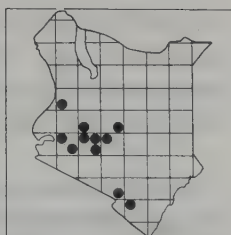
Feretia apodanthera Del. ssp. *keniensis* Bridson ined.

Shrub or tree 0.5-6m; bark smooth, reddish grey, splitting to show white underbark. Leaves elliptic, base cuneate to rounded, apex obtuse, rounded or apiculate, 1-5(8) by 0.5-3(5)cm, glabrous or fine-pubescent. Flowers usually precocious, white, 1-2 on short spurs; corolla 0.9-2.5cm long. Fruit red or white with purple streaks, globose, 5-13mm across.

K7; 1-50m; I-IV, VII, XI-XII (III-IV, XII).

Forest margins, coastal bushland, thickets.

Mfinyofinyo, Mtangalili (SWA), Mfaranje ziwa/Mngambo-kapehe (GIR). The wood is used for tool handles.

*Feretia apodanthera**Galiniera saxifraga***16. GALINIERA**

Flowers in stalked axillary cymes. Fruit a berry.

***Galiniera saxifraga* (Hochst.) Bridson**

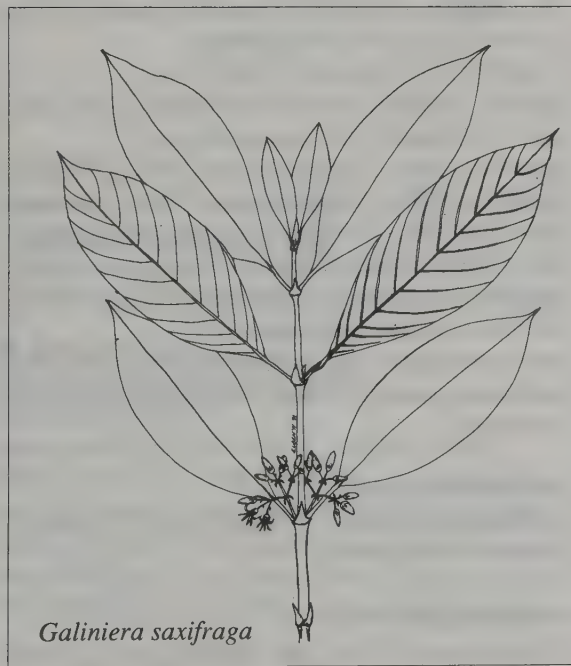
(*Galiniera coffeoides* Del.)

Shrub or tree 2.5-12m; bark smooth, grey. Leaves elliptic, base cuneate, apex acuminate, 8-18 by 3-7cm, glabrous or sparsely pubescent beneath, often with reddish veins. Flowers white (pink-tipped), in stalked cymes; corolla tube 1mm, lobes 5-10mm long. Fruit red, globose, 7.5-9mm across.

K3456; 1850-2400m; I-III, X-XII (I-II)

Moist forest, often near water.

Muthigitha, Mutimuiru, Mukomakoma (KIK), Chepokiyot, Kombionet (KIP), Oljartoiyan (MAA), Mgiri, Keonya (MER). Makes good walking sticks.

*Galiniera saxifraga***17. GARDENIA**

Leaves and branches opposite or in threes. Flowers 5-12-merous, in terminal or pseudo-axillary few-flowered fascicles. Fruit a berry with a thick wall, becoming pulpy, with a persistent calyx (except in *G. ternifolia* and *G. volkensii*)

1. Leaves wrinkled, less than 1.5cm wide; dry bushland **1. *G. fiorii***
- * Leaves not wrinkled, more than 1.5cm wide; moister habitats **2**
2. Forest species; leaves with acuminate apex **3**
- * Riverine woodland/wooded grassland species; leaves with rounded or rarely acute apex **4**
3. Leaves 4-12cm long; corolla tube 12-15mm long; fruit rounded, 10-12mm long **1. *G. transvenulosa***
- * Leaves 10-22cm long; corolla tube 90-125mm long; fruit ellipsoid, 40-60mm long **2. *G. posoquerioides***
4. Leaves elliptic or slightly obovate; fruit smooth **3. *G. ternifolia***
- * Leaves (broadly) obovate; fruit usually ribbed **5. *G. volkensii***

1. *Gardenia fiorii* Chiov.

Map next page

Shrub 2.5-4m; bark smooth, grey, peeling to show green underbark. Leaves often in 3, elliptic or obovate, base cuneate to narrowly subcordate, apex acute, 1-3.5 by 0.5-1.3cm, very wrinkled, densely pubescent. Flowers precocious, white, solitary and sessile, terminal; corolla tube 13-20mm, lobes 7-16mm long. Fruit subglobose, 9-10mm long.

K147; 1-450m; VII-VIII, X-XI*

Commiphora open bushland.

Karo (ORM), Karro (SOM). The hard wood is used for spears.

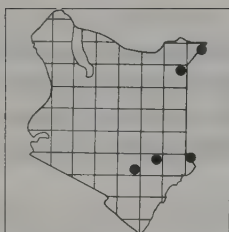
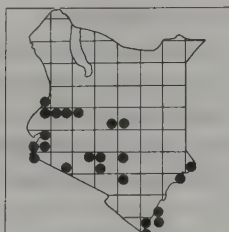
2. *Gardenia posoquerioides* S. Moore

Shrub 1.5-3.5m. Leaves opposite or in 3, elliptic or slightly obovate, base cuneate, apex acuminate, 10-22 by 4.5-9.5cm, glabrous. Flowers white, solitary, terminal; corolla tube 90-125mm, lobes 25-65mm long. Fruit fusiform, 6-ribbed, 4-6 by 1.6-2.2cm.

K7; 1-400m; IV*

Moist forest (Shimba Hills, Buda and Rabai).

Chimwemwe (DIG). A root decoction is employed against syphilis by the Digo.

*Gardenia fiorii**Gardenia ternifolia***3. *Gardenia ternifolia* Schum. & Thonn.**

[incl. *G. jovis-tonantis* (Welw.) Hiern, *G. lutea* Fres.] Shrub or tree 2-10m; bark greenish-grey. Leaves in 3, elliptic or slightly obovate, base attenuate to obtuse, apex rounded or obtuse, 4-18 by 2-11cm (indument: see varieties). Flowers white, turning yellow, solitary, terminal; corolla tube 45-110mm, lobes 20-55mm long. Fruit yellow or reddish, ellipsoid, 3.5-7.5 by 1.5-3.5cm, smooth.

K234567; 1-2100m; I-IV, VI, X-XII.

Wooded grassland or riverine woodland.

- ssp. *jovis-tonantis* (Welw.) Verdc. var. *jovis-tonantis*: leaves glabrous; K234567

- ssp. *jovis-tonantis* (Welw.) Verdc. var. *goetzei* (K.Schum.) Verdc.: leaves scabridulous-pubescent; K46.

Kimwemwe (SWA), Kurkoi (BON), Mukumuti

(KAM), Siuma (LUH), Onduongi, Rayadhi (LUO), Geninyet (MAA), Gabulwa (SEB). The bark has emetic properties, and the fruit is used in eye medicine. Wood very hard, fine-grained.

4. *Gardenia transvenulosa* Verdc.

[*G. sp. ?resiniflua* of KTS]

Shrub 0.5-4m, with shiny young shoots. Leaves opposite, (broadly) elliptic, base rounded and abruptly cuneate, apex (shortly) acuminate, 4-12 by 2.5-8cm, glabrous or nearly so except for domatia. Flowers white, 1-2 (apparently) axillary; corolla tube 12-15mm, lobes 5-6mm long. Fruit round, 10-12mm, slightly ribbed.

K7; 1-150m; I, V-VI, VIII*

Cynometra forest (Arabuko-Sokoke).

Mpera-mwitu (SWA), Mushandahele-ngurwe, Muto-moko (GIR). Giriama use a root decoction against stomach ailments.

5. *Gardenia volkensii* K.Schum. ssp. *volkensii*

Shrub or tree, 0.5-7.5m, bark smooth, silvery grey. Branches and leaves in 3. Leaves (broadly) obovate, base cuneate, apex rounded (acute), 2.5-9.5 by 1.7-5.5cm (see note) but usually less than 5 by 4cm, glabrous to slightly scabridulous. Flowers white, fading to yellow, solitary; corolla tube 50-130mm, lobes 20-50mm long. Fruit round or ellipsoid, 4-11 by 2.7-10cm, warty, often 8-10-ribbed.

K1234567; 1-1750m; I-II, V-XII

Riverine woodland, wooded grassland; on the coast also in bushland or thicket near the sea.

Mpoto-wa-ndovu, Mporo-mwitu (SWA), Gambe, Gambeila (BOR), Mukingwengwe (GIR), Ngenenet (KIP), Rayudhi (LUO), Oldagurguret (MAA), Magilion (MAR), Dambel (ORM), Kopululwo (PKT), Dumbel (SAN), Matha madal (SOM), Ekwere (TUR). The fruit is emetic and purgative.

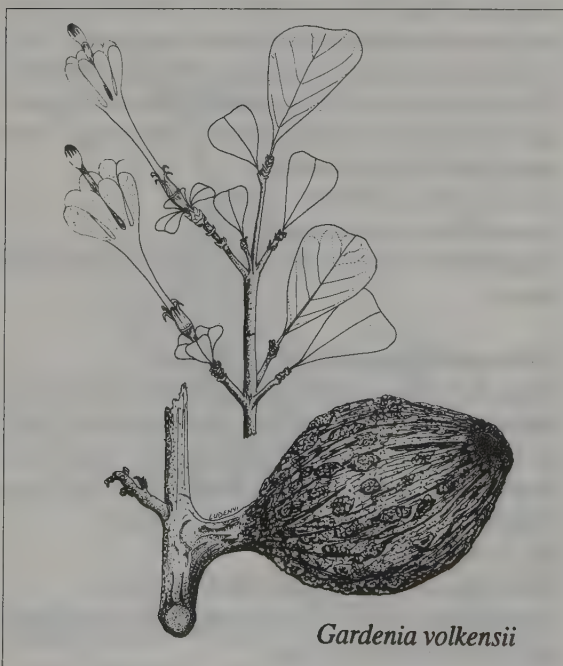
Note: some specimens are heterophyllous, with part of the leaves narrowly elliptic and acuminate and to 18cm long.

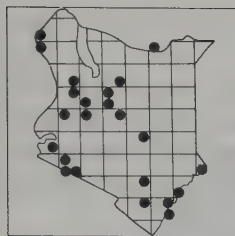
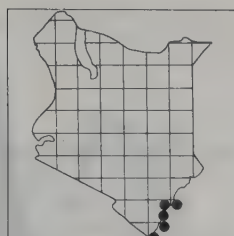
18. GUETTARDA

Inflorescence axillary, of stalked cymes. Flowers 6-11-lobed. Fruit a berry.

***Guettarda speciosa* L.**

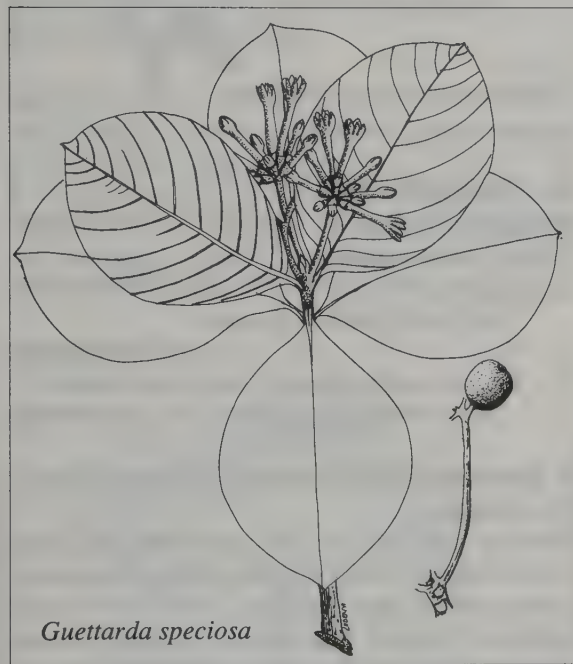
Shrub or tree 2-7.5m; bark smooth, grey. Leaves

*Gardenia volkensii*

*Gardenia volkensii**Guettarda speciosa*

obovate, base obtuse or narrowly subcordate, apex rounded to acute, 8-24 by 5-18cm, densely puberulous. Flowers white or pink, in dense stalked cymes; corolla tube 17-40mm, lobes 8-12mm long. Fruit subglobose, 15-20 by 18-25mm.

K7; near highwater mark; I, IV-V, VII-XII
Littoral, on sand or coral.

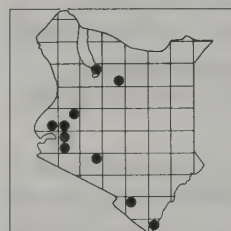
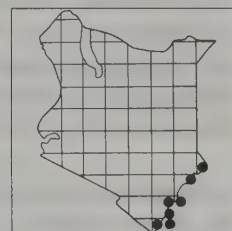
*Guettarda speciosa**Heinsenia diervilleoides*

several-flowered inflorescences (axillary or in forks); corolla hairy, 14-20mm long. Fruit greenish-purple, round, 11-13mm, crowned by persistent calyx.

K13457; 200-400m (coast) and 1450-2300m; I, III-IV, IX-XII

Forest.

Mumandala (LUH), Chemul masaita (KIP), Kipiripi (TUG).

*Heinsenia diervilleoides**Heinsia crinita*

19. HEINSENIA

Heinsenia diervilleoides K. Schum.

ssp. *diervilleoides*

[*Aulacocalyx diervilleoides* (K. Schum.) Petit]

Shrub or tree 1.8-12m, evergreen; bark pale grey, scaly(?). Leaves often with reddish veins beneath, (narrowly) elliptic, base cuneate, apex acuminate with long acute tip, 5-12 by 1-5cm, glabrous to puberulous, with domatia. Flowers white, spotted pink inside, in

20. HEINSIA

Flowers terminal on branchlets, in dense cymes; corolla with 4-6 lobes, each one ending in a linear acumen. Fruit with persistent calyx lobes.

1. Leaves almost glabrous

1. *H. crinita*

* Leaves densely pubescent beneath

2. *H. zanzibarica*



Heinsia crinita

1. *Heinsia crinita* (Afz.) G.Tayl.

ssp. *parviflora* (K.Schum. & K.Krause) Verdc.

Shrub or tree, 1-4.5m (sometimes climbing). Leaves elliptic, base cuneate, apex acute or shortly acuminate, 1.5-4.5 by 0.7-2cm, glabrous except for venation. Flowers white, solitary or in few-flowered shortly stalked cymes; corolla tube 18-25mm, lobes 10-18mm long. Fruit ellipsoid, 10-12mm long.

K7; 1-500m; I, IV-XII (V-VI)

(*Cynometra*) forest, *Brachystegia* woodland, bushland, thickets. Common in Arabuko-Sokoke.

Mfifiyo (SWA), Mshosho (GIR), Mushoka (DUR), Dewakiri (SAN). Fruit edible.

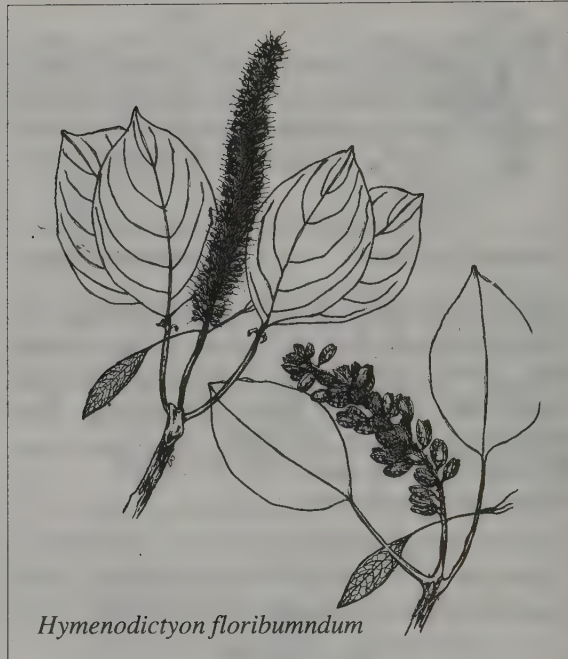
2. *Heinsia zanzibarica* (Boj.) Verdc.

(*H. densiflora* Hiern)

Shrub or tree 1.5-9m (rarely scandent). Leaves elliptic, base cuneate to rounded, apex acuminate, 5-14 by 2.5-6cm, densely pubescent beneath. Flowers white, in several-flowered cymes; corolla tube 28-35mm, lobes 17-30mm long. Fruit as in *H. crinita*, but hairy.

K7; 50-450m; I-II, V-XII

Forest margins; Shimba Hills, Buda, Pangani Rocks.
Mfiyofiyo (SWA).



Hymenodictyon floribundum

21. HYMENODICTYON

Inflorescences elongate, terminal. Corolla 5-lobed.
Fruit a 2-locular capsule.

1. Leaves acuminate, 8-25cm long; inflorescence with leafy bracts at the base

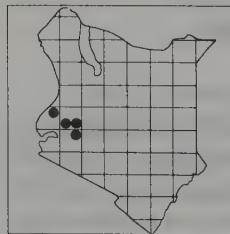
1. *H. floribundum*

- * Leaves usually obtuse, 2-6cm long; inflorescence without leafy bracts **2. *H. parvifolium***

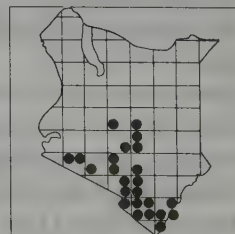
1. *Hymenodictyon floribundum* (Hochst. & Steud.)

B.L. Robinson

Shrub or tree 1.5-12m; bark grey-black, reticulate. Leaves turning red before falling, elliptic or obovate, base cuneate, apex acuminate, 8-25 by 4-12cm, glabrous to densely tomentellous beneath. Flowers (yellowish) red, in dense cylindrical inflorescences 6-22cm long; corolla tube 4-7mm, lobes less than 1mm



Hymenodictyon floribundum



H. parvifolium

long. Fruit brown, lenticellate, ellipsoid, 10-15mm long.

K35; 1650-2100m; III-IV*

On rocks in open vegetation.

Kumuimbi (LUH), Kamet, Kweruwak, Kabaandet (SEB), Chilgatuet (NAN).

2. *Hymenodictyon parvifolium* Oliv. ssp. *parvifolium*

Shrub or tree (rarely somewhat climbing) 1-5m; bark smooth, grey. Leaves elliptic, base cuneate, apex obtuse to acute, 2-6 by 0.5-3cm, glabrous (or nearly so). Flowers (greenish) white fading to dark red, in dense cylindrical inflorescences 1-8cm long; corolla tube 2.5-5mm, lobes 1.5mm long. Fruit brown, lenticellate, ellipsoid, 15-25 by 7-10mm.

K1467; 1-1700m; I, III, V, X-XII (XII).

Dry bush- or woodland, usually in rocky sites.

Mulinditi, Ulindini (KAM).

22. IXORA

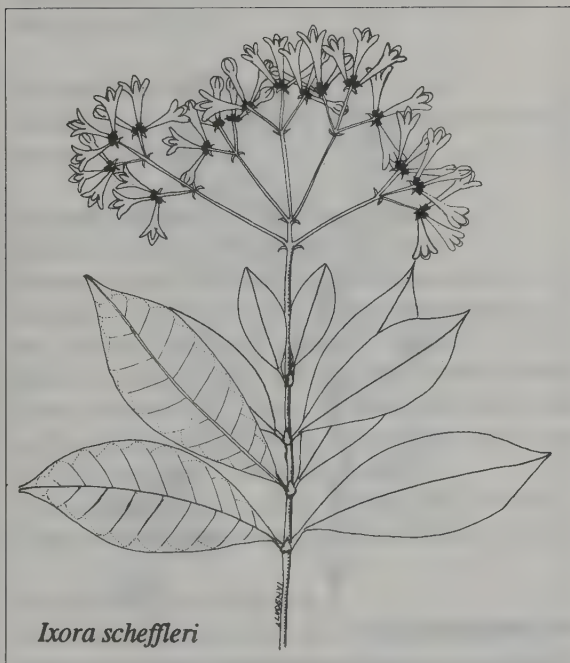
Inflorescence a terminal panicle; flowers 4-merous, with long tubes. Fruit a drupe.

1. Coastal species; corolla lobes 9-10mm long

1. *I. narcissodora*

* Mt. Kenya species; corolla lobes 5-7mm long

2. *I. scheffleri*



1. *Ixora narcissodora* K.Schum.

(*I. sp. nr. odorata* of KTS, p.p.)

Shrub or tree 2-9m. Leaves elliptic, base cuneate, apex acute to shortly acuminate, 7-25 by 2-6cm, glabrous. Flowers white and pink, in lax or dense panicles; corolla tube (12)30-60mm, lobes 9-10mm long. Fruit round or bilobed, 7-11mm.

K7; 1-450m; X-XII*

Forest; Shimba Hills, Witu and Ribe Kaya.

Mlindi-Chozi (SWA), Mgoa (DIG).

2. *Ixora scheffleri* K.Schum. & K. Krause

ssp. *keniensis* Bridson

(*I. ulugurensis* & *I. latituba* sensu KTS)

ENDANGERED, ?EXTINCT

Shrub or tree 5-8m. Leaves elliptic, base cuneate, apex acute to shortly acuminate, 4-16 by 2-4.5cm, glabrous. Flowers white and pink, in lax panicles; corolla tube 15-22mm, lobes 5-7mm long. Fruit round or ellipsoid, 8-9mm long.

K4; 1900-2100m; I, XII*

Moist (*Ocotea*) forest; Mt. Kenya, NE, E and S sides. Mutichuma, Kiruru (KIK), Muthioya (EMB).

23. KEETIA

Very much like *Canthium*.

1. Leaves with rusty pubescence; leaf base (sub-) cordate

1. *K. gueinzii*

* Leaves glabrous or nearly so; leaf base cuneate or rounded

2

2. Leaf-blade with very fine network of veins

2. *K. venosa*

* Leaf-blade with rather spaced tertiary veins

3. *K. zanzibarica*

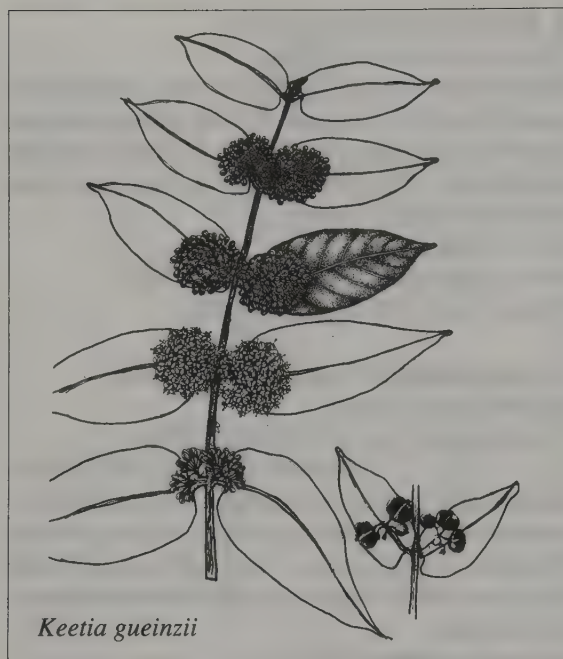
1. *Keetia gueinzii* (Sond.) Bridson

[*Canthium gueinzii* Sond., *C. hispidum* sensu KTS]

Climber (rarely shrub) 2-9 (15)m. Leaves ovate or elliptic, base subcordate, apex acuminate, 5-13 by 2-6.5cm, sandpapery above and rusty-pubescent beneath or more glabrous with mainly the veins rusty-pubescent. Flowers white, in dense stalked axillary cymes to 3.5cm; corolla 6-7mm long. Fruit black, 1-2-seeded, subglobose.

K3457; 150-400m (coast) and 1300-2500m; I-V, VIII-XI (III-IV)

Moist forest (margins), secondary bushland, riverine forest.



Mti-ndapo (SWA), Munyunzu (DIG), Mugunguma, Mugokoma (KIK), Cheplekwelet, Jiliekwelet (KIP), Lusesbi, Lukonsongabu (LUH), Rangwekuot (LUO), Mugugu (MER), Lekweliet (NAN), Mokilokwa (TUG). Fruit edible.

2. *Keetia venosa* (Oliv.) Bridson
[*Canthium venosum* (Oliv.) Hiern]

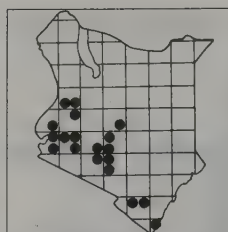
Shrub or climber, 2-4m. Leaves ovate or elliptic, base cuneate or rounded, apex acuminate, 7-15 by 2.5-5cm, glabrous except for domatia. Flowers white, in stalked dense cymes to 3cm; corolla 4-5mm long. Fruit 1-2-seeded, subglobose, 7-9mm long.

K7; 1-450m; I, VII *

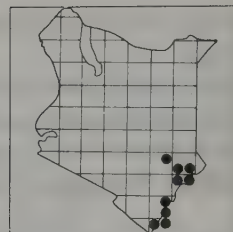
Moist forest or thickets in Shimba Hills and Gongoni. Mti-ndapo (SWA), Munyunzu (DIG).

3. *Keetia zanzibarica* (Klotzsch) Bridson
ssp. *zanzibarica*
(*Canthium zanzibaricum* Klotzsch)

Shrub with arching branches or climber, 1.5-6 (?)m; bark pale grey. Leaves ovate, base (often unequally) rounded to sub-cuneate, apex acuminate (usually short and blunt), 5-12 by 2-7cm, glabrous (see note) except for domatia. Flowers white to yellow-green, in dense stalked cymes to 2cm; corolla 3.5-6mm long. Fruit 1-



Keetia gueinzii



Keetia zanzibarica

2-seeded, ellipsoid or heartshaped, 10-12mm long. K7; 1-450m; I-V, X-XII (III).

(Riverine) forest margins, woodland or wooded grassland, thickets.

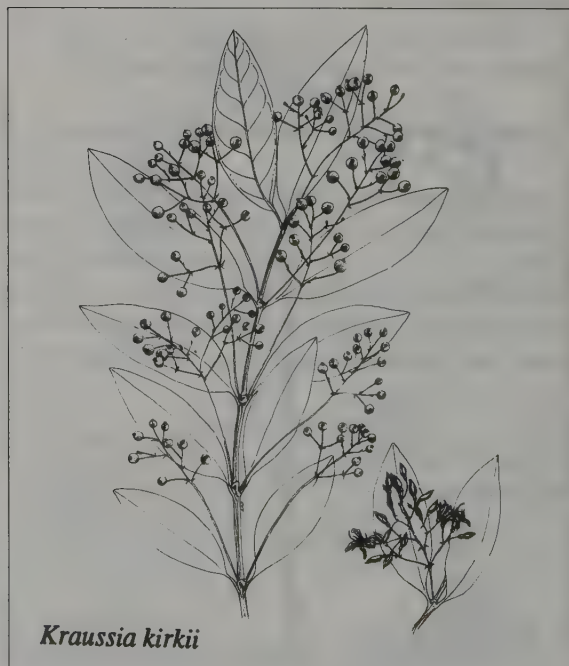
Mti-ndapo (SWA), Munyunzu (DIG), Mfuranje/Muzunzwi (GIR). The fruit is edible.

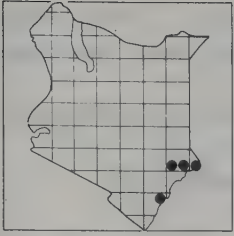
Note: material from the Tana River forests is sometimes sparsely pubescent.

24. KRAUSSIA

Inflorescence a stalked axillary panicle; flowers 5-merous. Fruit a berry, with persistent calyx.

1. Leafbase cuneate; calyx lobes less than 2mm long **1. *K. kirkii***
- * 2. Leafbase rounded; calyx lobes \geq 2mm long **2. *K. speciosa***



*Kraussia kirkii***1. *Kraussia kirkii* (Hook.f.) Bullock**

Shrub 1-4.5m. Leaves elliptic, base cuneate, apex obtuse to slightly acuminate, 6-12 by 2-5cm, glabrous. Flowers cream, in panicles 7-14cm long; corolla tube 3-4mm, lobes 5-6mm long. Fruit round or 2-lobed, 5-5.5mm across.

K7; 1-400m; I, X-XII *

Bushland or riverine forest.

Den (BON), Muchumi (PKM).

2. *Kraussia speciosa* Bullock

Shrub or tree 3-6m. Leaves elliptic, base rounded, apex acute or acuminate, 8-18 by 3-7cm, glabrous or nearly so. Flowers white or yellow, in panicles 5-10cm long; corolla tube 4.5-7mm, lobes 7-8 (13)mm across. Fruit round or 2-lobed, 8-9mm across.

K7; 1-450m; I, X *

Forest (Shimba Hills, Dzombo and Witu forest)

Munyunzu (DIG).

25. LAGYNIAS

Inflorescence a short-stalked axillary cyme; flowers 5-merous. Fruit a berry.

***Lagynias pallidiflora* Bullock**

(incl. *L. littoralis* Bullock & Greenway)

Shrub or tree 4-10m, rarely somewhat scandent. Leaves elliptic, base cuneate, apex obtuse or acuminate, 2-12 by 1-6.5cm, glabrous. Flowers cream or yellow-green, in few-flowered cymes; corolla tube 9-12mm, lobes 6-8mm long, tailed. Fruit brown, asymmetrically ellipsoid, sometimes 3-lobed, about 16mm long.

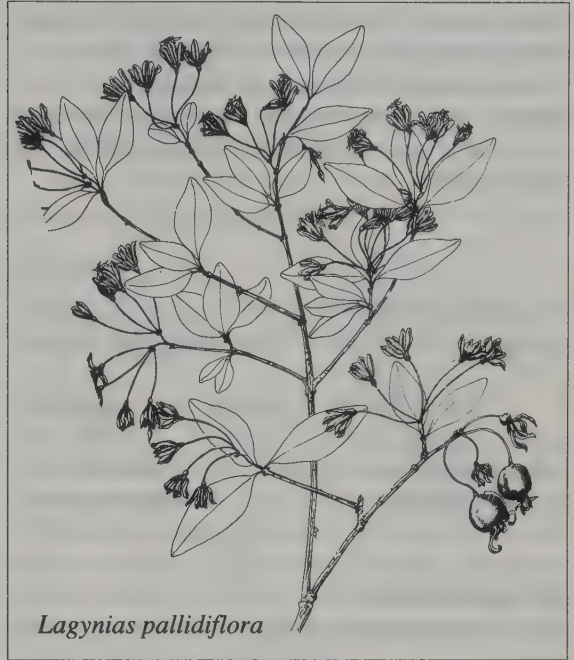
K7; 1-450m; III-IV, VIII-IX, XI-XII *

Forest (Shimba Hills, Buda, and Arabuko-Sokoke)

Note: the calyx has a deceptively corolla-like look.

26. LAMPROTHAMNUS

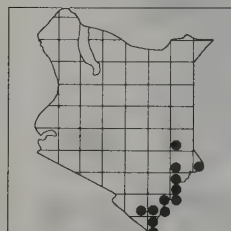
Inflorescence of terminal and axillary panicles; flowers with 6-8 lobes. Fruit a berry with a persistent calyx.

*Lagynias pallidiflora****Lamprothamnus zanguebaricus* Hiern**

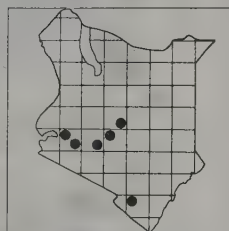
Shrub or tree 1-9m, evergreen; bark grey, fissured. Leaves ovate or elliptic, subsessile, base (sub-)cordate, apex rounded (subacute), 4-12 by 2-6cm, glabrous. Flowers white, in dense panicles; corolla tube 5-

*Lamprothamnus zanguebaricus*

12mm, lobes 6-11mm long. Fruit red, round, 6-11mm. K17; 1-500m; III, VII-VIII, X-XII (XI)
Coastal evergreen (secondary) bushland.
Mchesi, Mkokobara (SWA), Mtsomolo, Mnyukufu (GIR), Muk garach (ORM), Mchomia (PKM). The fruit is edible.



Lamprothamnus zanguebaricus



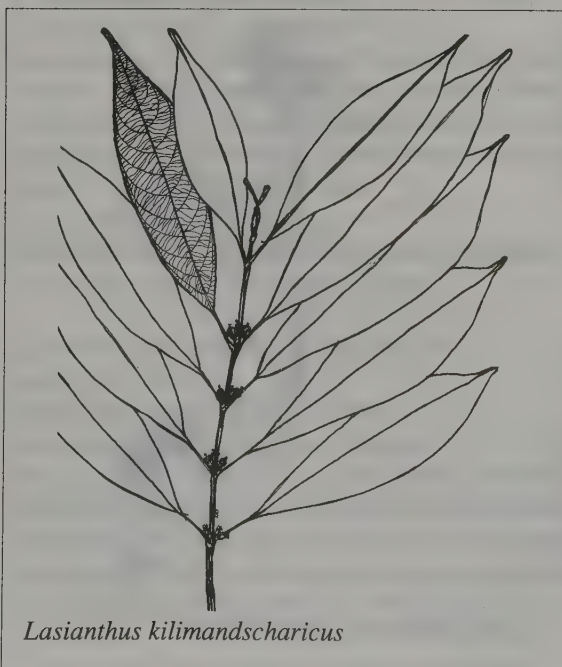
Lasianthus kilimandscharicus

27. LASIANTHUS

Flowers in axillary fascicles, with 4-5 lobes. Fruit a berry.

Lasianthus kilimandscharicus K.Schum.

Shrub or tree 2-7m; bark smooth, grey. Leaves (narrowly) elliptic, base cuneate, apex acuminate, 9-17 by 2-6cm, glabrous or nearly so. Flowers white or pale



Lasianthus kilimandscharicus

purple, few per axil; corolla tube 2.5-4mm, lobes (which are hairy inside) 2-4mm long. Fruit blue, round, 4.5-10mm across.

K(1?)3457; 1500-2500m; I, III-IV, VI, X-XII (XII)
Moist (*Ocotea*) forest.

Murundi, Mukwethi (KIK), Ruandet (KIP).

28. LEPTACTINA

Inflorescence a terminal cyme; corolla with 5-6 lobes. Fruit a berry.

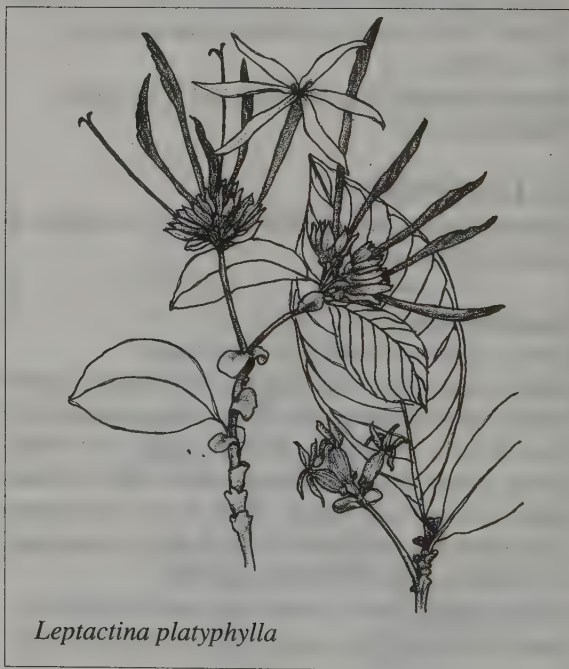
Leptactina platyphylla (Hiern) Wernh.

Shrub or tree, 2-7.5m. Leaves elliptic, base cuneate, apex acuminate, 7-30 by 4-14cm, glabrous to sparsely pubescent; stipules leafy, to 23mm long. Flowers white, hairy, in dense cymes; corolla tube 70-110mm, lobes 40-52mm long. Fruit ellipsoid, 11-20 by 7-14mm.

K57; 1-450 and 1550-1650m; II, IV, VI, XII *

Moist forest: Kakamega, Shimba Hills, Gongoni and Cha Simba.

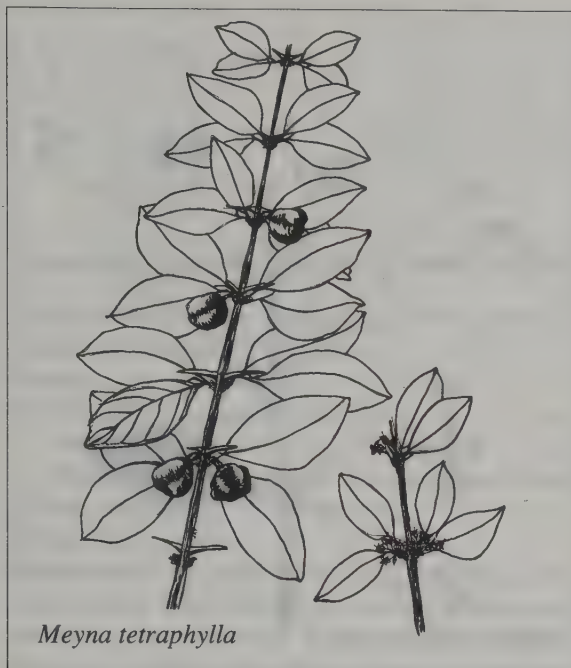
Yongo (SWA).



Leptactina platyphylla

29. MEYNA

Plants armed with paired spines above the nodes; leaves appearing to be in fours, actually in pairs on



very short spurs at each node. Flowers in short fascicles on these spurs; corolla lobes 4-5. Fruit a berry.

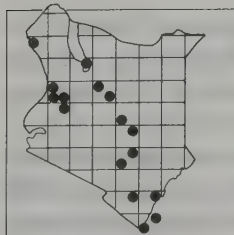
***Meyna tetraphylla* (Hiern) Robyns**

Shrub or tree 2.5-6m, or (on the coast) a liana to 20m; bark greybrown, rough. Spines 4-26mm long. Leaves elliptic, base cuneate, apex obtuse or subacute, 2-7 by 1-3.5cm, glabrous or pubescent. Flowers white or green, in fascicles; corolla tube 1-2mm, lobes 2-3mm long with a short acumen. Fruit subglobose, bluntly 5-angled, 13-17 by 16-20mm.

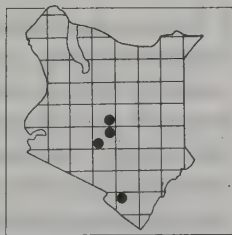
K12347; 1-1400m; V, XI-XII *

Riverine woodland, gully thickets, rocky bushland; on the coast also in forest and coastal bushland.

Nazingu (STAND), Mubururi (ILW), Kititii (KAM), Mukundu, Mutunguru (KIK), Bururi (ORM), Tu-



Meyna tetraphylla



Mitragyna rubrostipulata

lungwo (POK), Yeho (REN), Tiling'wo (TUG), Esugumaran (TUR). A root decoction is given by the Pokot to pregnant women to alleviate pain.

- ssp. *tetraphylla*: buds sparsely hairy; pedicels densely hairy. K1; 1000-1400 m

- ssp. *comorensis* (Robyns) Verdc.: buds glabrous; pedicels glabrous to pubescent. K2347; 1-1100 m.

30. MITRAGYNA

Stipules large, leafy. Flowers in terminal and axillary panicles of globose heads. Fruit a 2-valved capsule.

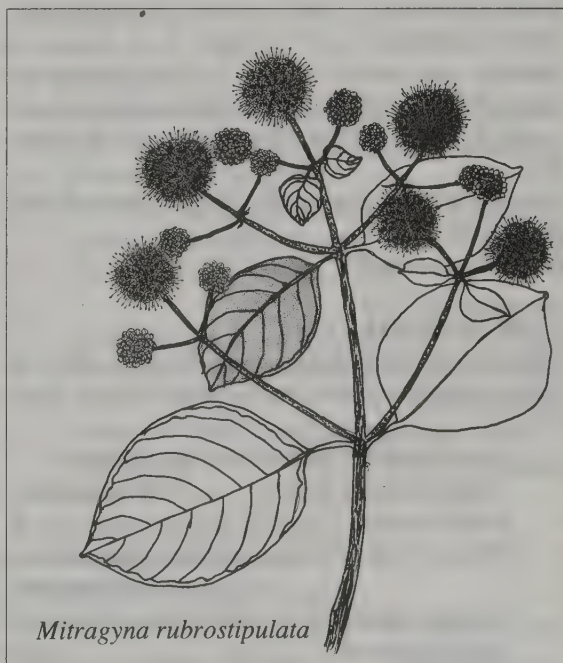
***Mitragyna rubrostipulata* (K.Schum.) Havil.**

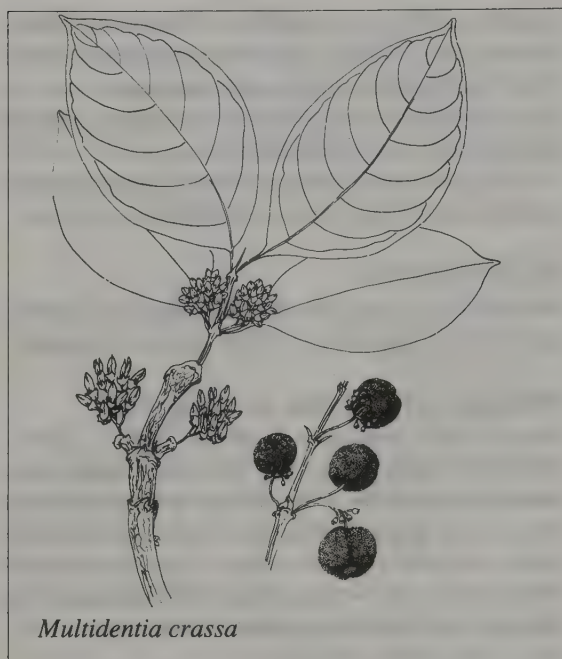
Tree 20-36m; bark grey or brown, scaly. Leaves (broadly) elliptic, base cuneate to subcordate, apex short-acuminate, 10-30 by 6-20cm, glabrous (except for veins) to densely pubescent. Flowers (yellowish) white, in heads to 3cm across in large panicles to 20cm; corolla tube 4-6mm, lobes 1.5-3mm long. Fruit ellipsoid, 9-13 by 5mm, with persistent calyx.

K47; 1350-2200m; VIII, XII *

In wet forest along rivers.

Nzingu (STAND), Mukundukundu (MER). Wood perishable.





31. MULTIDENTIA

Similar to *Canthium*.

Multidentia crassa (Hiern) Bridson & Verdcourt var. *crassa* (*Canthium crassum* Hiern)

Shrub or small tree 0.5-6m; bark dark, peeling to show reddish underbark. Leaves elliptic, base cuneate to rounded, apex obtuse, 3-27 by 2-15cm, glabrous (to hairy). Flowers yellow-green, in dense stalked cymes; corolla 5.5-7.5mm long. Fruit ellipsoid, 18-22mm long.

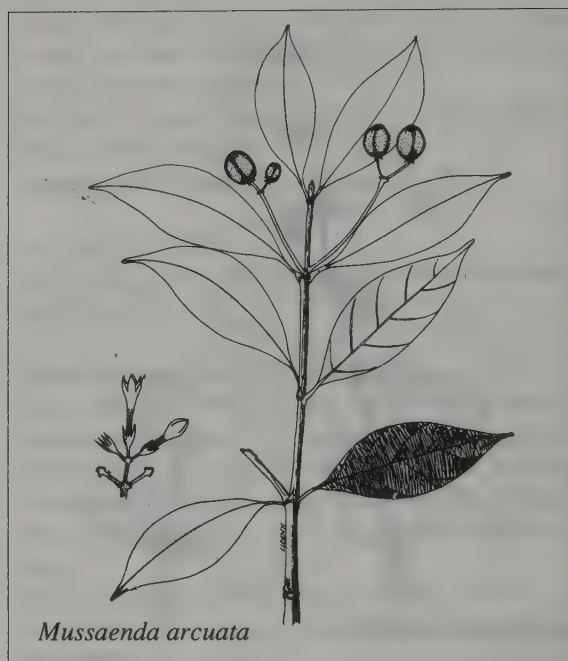
K3; collected once (Bogdan EA 10414) between Kitale and Lugari; -*

Wooded grassland.

32. MUSSAENDA

Inflorescence a terminal panicle; calyx often with 1 or more enlarged, coloured lobes; corolla 5-lobed. Fruit a berry.

- | | | |
|----|--|------------------------|
| 1. | Coastal species; inflorescence lax, enlarged sepal cream or yellow | 4. <i>M. monticola</i> |
| * | Inland species | 2 |
| 2. | Enlarged sepal absent; fruit blue; panicles lax | 1. <i>M. arcuata</i> |
| * | Enlarged sepal present; fruit yellow or green; panicles dense | 3 |



3. Enlarged sepal red; fruit ellipsoid

2. *M. erythrophylla*

- * Enlarged sepal white; fruit globose

3. *M. microdonta*

1. *Mussaenda arcuata* Poir.

Shrub or climber 2-4.5m. Leaves elliptic, base cuneate to rounded, apex acuminate, 4-14 by 2-6cm, glabrous or sparsely pubescent. Flowers yellow with orange hairy centre, in panicles to 7cm; corolla tube 13-27mm, lobes 8-19mm long. Fruit blue, subglobose or ellipsoid, 11-25 by 8-18mm.

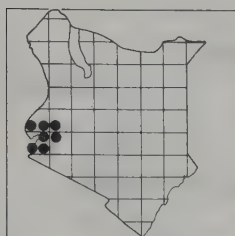
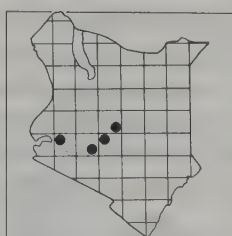
K35; 1050-1650m; I, III-IV, VIII-IX, XI-XII.

Bushed or wooded grassland, secondary bushland, forest margins.

Mudondo, Shihanga (LUH), Achak, Adieremo (LUO). The fruit is edible.

2. *Mussaenda erythrophylla* Schum. & Thonn.

Climber to 7.5m. Leaves elliptic, base cuneate (rounded), apex acuminate, 3-18 by 2-11cm, densely pubescent on both sides. Flowers white to yellow, with enlarged red calyx lobe(s), in dense panicles; corolla tube 1.5-3mm, lobes 5-12mm long; calyx with enlarged lobe(s) 3-11 by 2-9cm. Fruit yellow, ellipsoid, 10-24 by 7-14mm.

*Mussaenda arcuata**Mussaenda microdonta*

K3/5, collected once (Dale 3110, anno 1933) in Kakamega forest; VI *

Forest.

Lusesh (LUH), Lugureko (NAN).

3. *Mussaenda microdonta* Wernh. ssp. *odorata* (Hutch.) Bridson

(*M. odorata* Hutch)

Shrub or tree 2.5-9m; bark brown-grey, smooth. Leaves with reddish veins and midrib beneath, elliptic, base cuneate, apex acuminate, 8-19 by 3-9cm, sparsely hairy, esp. on the veins. Flowers lemon yellow, with enlarged white calyx lobe(s), in dense panicles; corolla tube 25-28mm, lobes 8-9mm; enlarged calyx lobes 3-9 by 2-8cm. Fruit green with brown warts, globose, about 10mm across.

K45; 1800-2100m; I, X-XII *

In forest along rivers.

Mauri, Muremanuthua (KIK).

4. *Mussaenda monticola* Krause var. *monticola*

Shrub or tree, 3-4(9)m. Leaves elliptic or ovate, base cuneate, apex acuminate, 10-23 by 5-11cm, sparsely hairy. Flowers yellow, orange or red, with enlarged cream or yellow calyx lobe(s), in lax panicles; corolla tube 14-20mm, lobes 3-4mm long; enlarged calyx lobes 5-7 by 3.5-5cm. Fruit narrowly ellipsoid, 2-3 by 0.7-0.9cm.

K7; 1-400m; V, VII *

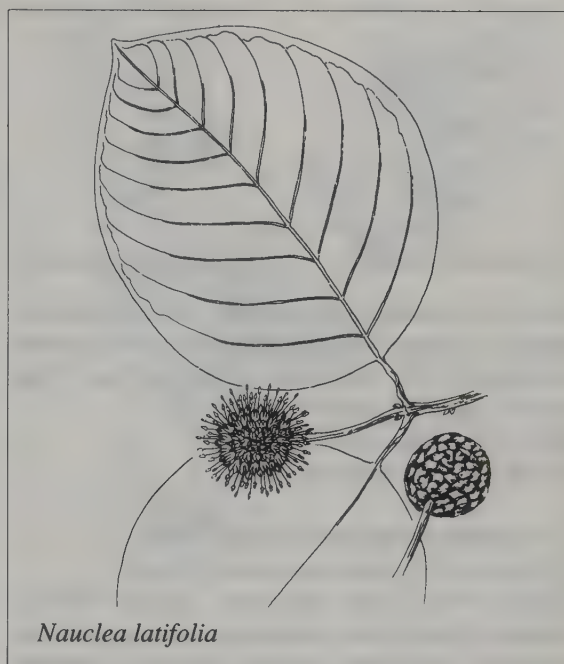
Moist forest (Shimba Hills, Gongoni, Pangani Rocks).

33. NAUCLEA

Inflorescence a terminal, solitary globose head; corolla lobes 4-5. Fruit syncarpous.

***Nauclea latifolia* Sm.**

Shrub or tree 2-9m; bark grey or brown, fibrous, fissured. Leaves broadly elliptic or -ovate, base broadly cuneate to cordate, apex shortly acuminate, 10-21 by

*Nauclea latifolia*

7-14cm, glabrous or nearly so. Flowers white or yellowish, in globose heads 4-5cm across; corolla tube 7-10mm, lobes 2-2.5mm long. Fruit red, fleshy, ovoid or globose, 5-8cm across, warty.

K5, collected once at Busia, in wooded grassland.

Wood hard.*

34. OXYANTHUS

Plants often smelling sweetly, even when dried. Flowers 5-lobed, in axillary (lateral) panicles. Fruit a berry.

1. Flowers in lax panicles 3

* Flowers in short, compact, subsessile panicles; corolla tube over 7cm long 2

2. Coastal species; sepals 5-8mm

4. *O. zangebarica*

* Inland species; sepals 2-4mm 1. *O. goetzei*

3. Stipules 6-16x3-6mm; bracteoles 4-9mm long] 3. *O. speciosus*

* Stipules 9-28x4-12mm; bracteoles less than 2mm long 2. *O. pyriformis*

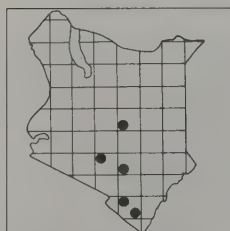
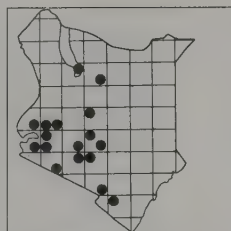
2. *O. pyriformis*

1. *Oxyanthus goetzei* K.Schum.

ssp. *keniensis* Bridson ined.

(*O. oxycarpus* sensu KTS, p.p.)

Shrub 1.5-4.5m. Leaves elliptic, base cuneate, apex shortly acuminate, 5-19 by 2.5-7.5cm, glabrous or

*Oxyanthus goetzei**Oxyanthus speciosus*

nearly so; domatia often present. Flowers white or yellow, in dense few-flowered subsessile panicles; corolla tube 72-112mm, lobes 12-30mm long. Fruit brown, ellipsoid, 29-45mm.

K47; 750-1700m; X-XII *

Riverine- or groundwater forest.

2. *Oxyanthus pyriformis* (Hochst.) Skeels
(*O. goetzei* & *O. speciosus* sensu KTS, p.p.)

Shrub or tree 5-10m; bark grey. Leaves ovate or broadly elliptic, base cuneate to truncate, apex obtuse or shortly acuminate, 8-30 by 3.5-13cm, glabrous. Flowers white, in lax panicles; corolla tube (see ssp. notes) 34-160mm, lobes 10-26mm long. Fruit green, obovoid, 18-37 by 15-20mm.

- ssp. *brevitubus* Bridson **VULNERABLE**
Corolla tube 34-40mm long.

*Oxyanthus*

K4; 900-1800m; I, VII

Dry forest (Emali Hill, Mutito Hill).

- ssp. *longitubus* Bridson

RARE

Corolla tube 110-160mm long.

K7; 1-450m; IV, VIII-IX *

Moist forest (Shimba Hills, Gongoni, Pangani).

3. *Oxyanthus speciosus* DC.

ssp. *stenocarpus* (K.Schum.) Bridson ined.

Shrub or tree 2-12m. Leaves elliptic, base cuneate (rounded), apex acuminate, 7-23 by 3-11cm, glabrous or nearly so. Flowers white or cream, in rather lax panicles; corolla tube (15) 40-70mm, lobes (6) 10-18mm long. Fruits (narrowly) ellipsoid, 30-60 by 13-17mm.

K13456; 1400-2200m; I-II, V-VI, VIII, X, XII (I).

(Riverine) forest.

Mundumbilu, Munziki (KAM), Lusiliru (KIK), Namasingi (NAN), Kakawa (TUG).

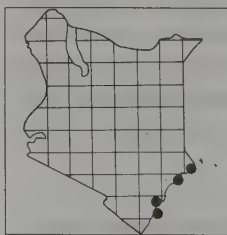
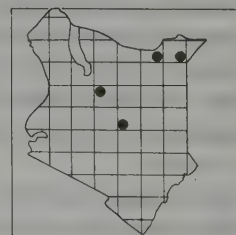
4. *Oxyanthus zanguebaricus* (Hiern) Bridson ined.

Shrub 1-6m, rarely somewhat scandent. Leaves elliptic or slightly ovate, base obtuse or cuneate, apex acute or shortly acuminate, 6-19 by 2-7cm, glabrous or nearly so. Flowers white, in compact subsessile panicles; corolla tube 75-114mm, lobes 10-22mm long. Fruit ovoid, 35-53 by 24-32mm.

K17; 1-500m; IV-V, X *

Forest, woodland, bushland.

Mfupapu (SWA), Njogoma (GIR). Wood durable, used for building poles.

*Oxyanthus zanguebaricus**Pachystigma gillettii*

35. PACHYSTIGMA

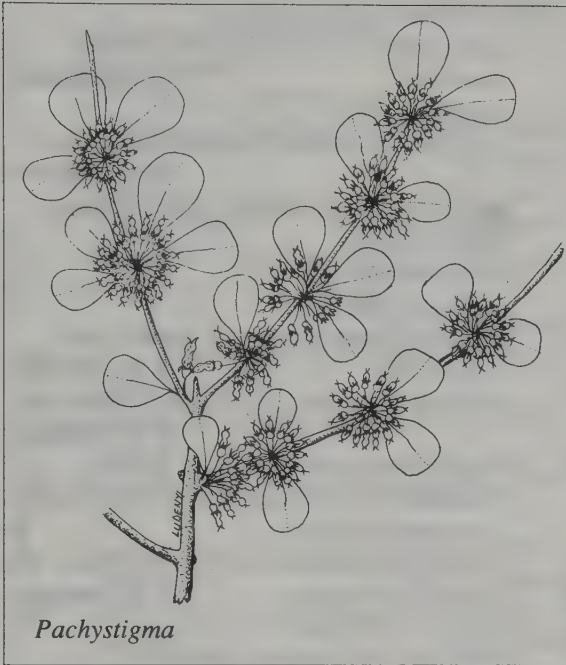
Flowers 4-5-lobed, in axillary cymes or fascicles. Fruit a berry.

1. Leaves pubescent

1. *P. gillettii*

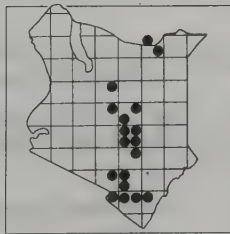
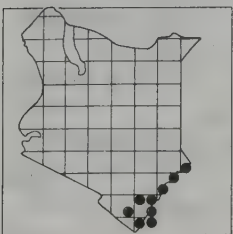
* Leaves glabrous

2. *P. loranthifolium*

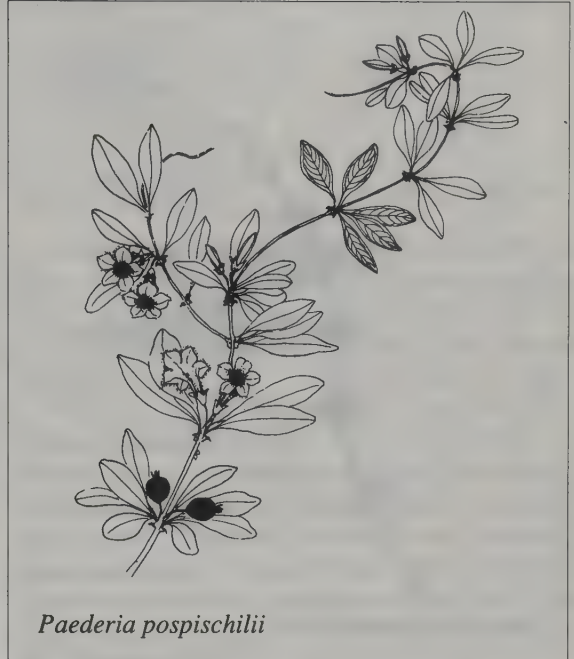


1. *Pachystigma gillettii* (Tennant) Verdc. **RARE**
Shrub 2-3m. Leaves on very short spur shoots, elliptic or obovate, base cuneate, apex rounded, 1-3 by 0.7-1.8cm, pubescent. Flowers white or yellow, in few-flowered fascicles; corolla tube 3-4mm, lobes 3-4mm long. Fruit asymmetric, ellipsoid, 9.5 by 6mm. K14; 450-900m; V, X-XI *
Dry *Acacia-Commiphora* bushland, or in rocky bushland.

2. *Pachystigma loranthifolium* (K.Schum.) Verdc. [*Rytigynia loranthifolia* (K.Schum.) Robyns]
Shrub or tree 1.5-7m; bark grey-white. Leaves obovate or elliptic, base cuneate, apex rounded, 0.7-4 by 0.4-2.4cm, glabrous. Flowers cream, yellow or orange, in few-flowered fascicles or subsessile cymes; corolla tube 3-4mm, lobes 4.5-5.5mm long. Fruit globose,



Pachystigma loranthifolium *Paederia pospischilii*



about 15mm across, with persistent calyx. K7; 1-800m; IV-V, VII-VIII, X-XII *
Bushland or bushed grassland on sand or coral. Mtengeji (SWA).
Hucks 932 from Sala area, Tsavo has been designated as ssp. *salaense* Verdc., as its leaves are tiny (ca. 7 x 4mm) and its pedicels only 1.2mm.

36. PAEDERIA

Flowers 4-5-lobed, in axillary fascicles. Fruit a capsule, with persistent calyx.

Paederia pospischilii K. Schum.

Climber 0.3-9m long. Leaves broadly ovate or (narrowly) elliptic, base rounded or cuneate, apex rounded or acute, 1-6.5 by 0.2-2.7cm, densely or sparsely pubescent. Flowers white with red or purple, hairy, in axillary fascicles; corolla tube 6-16mm, lobes 3-11mm long. Fruit pale brown, ellipsoid, 10-11 by 7-9mm. K147; 400-900m; I-V, VIII, X-XII (V, XI, XII). Dry (*Acacia-Commiphora-Grewia*) bushland Mriti (KAM). The flowers smell of rotten eggs.

37. PAURIDIANTHA

Flowers usually 5-lobed, in short axillary cymes. Fruit a berry.



***Pauridiantha paucinervis* (Hiern) Brem.**

ssp. *holstii* (K.Schum.) Verdc.

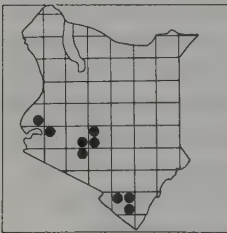
[*P. holstii* (K.Schum.) Brem.]

Shrub or tree 2-5(9)m. Leaves (narrowly) elliptic, base cuneate, apex acuminate, 6-15 by 1.5-5cm, glabrous or hairy on veins. Flowers white to yellow, in axillary cymes to 1cm; corolla tube 2-5mm long, lobes 2-3mm long. Fruit yellow to red, tinged purple, subglobose, 3-5mm long.

K3457; (1250) 1700-2500m; I-VI, X-XII.

Moist forest; may be common in *Ocotea* forest.

Mukwethi (KIK), Chepkerombetiet (KIP), Ruturwo (LUH).



Pauridiantha paucinervis

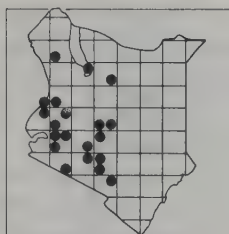
38. PAVETTA

Leaves usually with bacterial nodules, visible as black or pale dots or stripes. Flowers 4(-5)-merous, in (sub-) sessile corymbs, terminal on leafy branches or short

leafless spurshoots. Fruit a drupe.

1. Leaves linear, 7-12 by 0.8-1.6cm; coastal bushland **9. *P. linearifolia***
- * Leaves not linear **2**
2. Leaves on short spurs; flowers/fruits solitary **19. *P. uniflora***
- * Leaves spaced on branches; flowers/fruits in dense corymbs **3**
3. Leaves whorled in 3 or 4 **4**
- * Leaves opposite **5**
4. Leaf apex obtuse or rounded; corolla tube 8-15mm long **3. *P. crassipes***
- * Leaf apex acuminate; corolla tube 4-6mm long **18. *P. ternifolia***
5. Flowers/fruits terminal on short leafless branchlets (occasionally so short that corymb may appear axillary) **6**
- * Flowers/fruits terminal on leafy branchlets **10**
6. Leaves 12-23cm long **3. *P. crassipes***
- * Leaves 2-11cm long **7**
7. Leaves and calyx densely pubescent **5. *P. dolichanta***
- * Leaves glabrous or pubescent; calyx glabrous or sparsely pubescent **8**
8. Inflorescence dense, sub-umbellate **15. *P. subcana***
- * Inflorescence lax **9**
9. Corolla tube 1-2mm wide at top; calyx lobes up to 1mm; leaves drying greenish **7. *P. gardeniifolia***
- * Corolla tube 1mm wide at top; calyx lobes 1-2mm; leaves drying grey or black **12. *P. sepium***
10. Corolla tube shorter than the lobes, bearded at the throat (forest species) **11**
- * Corolla tube slender, longer than the lobes, never bearded at the throat **12**
11. Mt Kenya species; corolla lobes acute **8. *P. hymenophylla***
- * Western species; corolla lobes rounded **18. *P. ternifolia***
12. Calyx lobes 0.5mm long, 1-1.5mm wide; corymbs 9-15cm across **17. *P. teitana***
- * Calyx lobes longer than wide **13**
13. Plants from Coast Province, found below 1000m **14**
- * Plants from inland, usually found above 1000m **18**

1. ***Pavetta abyssinica*** Fres. Plate p.530
(incl. *P. kenyensis* Brem., *P. lamurensis* Brem., *P. maitlandii* Brem., *P. spaniotricha* of KTS, *P. silvicola* Brem., *P. trichotropis* Brem.)
Shrub or tree 2-8m. Leaves often drying black, (narrowly) elliptic, base cuneate, apex acuminate, 4-16 by 1.5-6cm, glabrous (pubescent). Flowers white to pale yellow, in corymbs terminal on leafy branchlets; corolla tube 8-22mm, lobes 4-10mm long. Fruit black, globose, to 1cm across.
K123456; 1500-2550m; I-X
Forest; less often in secondary bushland derived from forest.
Mbemba (KAM), Mwathathia/Muhurangware (KIK), Belbeliet (KIP), Jeptabirirwa (MAR), Kipkonorowa (TUG).



Pavetta crassipes

- var. *lamurensis* (Bremek.) Bridson (*P. lamurensis* Brem.) : corolla hairy outside. K4, Limuru (Scheffler 314)

- var. *prescottii* Bridson: calyx hairy. K4, Nanyuki
(Prescott Decie s.n.)

Shrub 2-3m; young branches square. Leaves drying grey-green or blackish, elliptic to obovate, base cuneate, apex shortly acuminate, 5-9 by 3-5cm, (sparsely) pubescent beneath. Flowers white, in corymbs terminal on leafy branchlets; corolla tube 15mm, lobes 8mm long. Fruit black, round 6-7mm, with persistent calyx. K1; 1000m; -*
Thicket; Huri Hills.

Shrub or tree 2-7.5m, resembling a *Protea*; bark greyblack, fissured; older branches angled, thick, with grey bark. Leaves opposite or in 3/4, narrowly elliptic, base cuneate, apex obtuse or rounded, 12-23 by 1.5-5cm, glabrous. Flowers white or cream, in corymbs terminal on leafless branchlets; corolla tube 8-15mm, lobes 4-6mm long. Fruit black, round, 6-8mm.

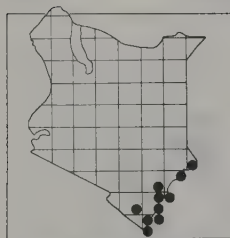
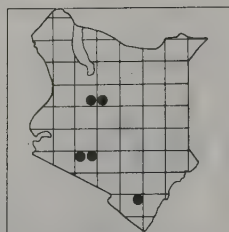
K345; 900-1500m; I, XII *

Wooded grassland.

Munyenyo, Muvembe (KAM), Jathohonda, Mikumi, Rabuor (LUO). The fruit is eaten as a vermifuge by the Kamba.

Shrub 0.5-3m. Leaves elliptic to slightly obovate, base cuneate, apex acute, 3.5-11 by 1.5-6cm, glabrous (pubescent). Flowers white, in corymbs terminal on leafy branches; corolla tube 10-22mm, lobes 5-8mm long. Fruit black, round, 8-11mm, with persistent calyx.

K7; 1-950m; I, IV-VI, VIII-IX, XI-XII.
Forest, bushland or littoral thicket.

*Pavetta crebrifolia**Pavetta dolichantha*

Mubati Murah, Kakiya (GIR), Mvumu (TAI).

5. *Pavetta dolichantha* Brem.

Shrub 1-2.5m. Leaves elliptic or obovate, base cuneate, apex obtuse to emarginate, 2-6 by 1-2.8cm, densely short-pubescent. Flowers yellowish white, in corymbs terminal on short leafless branches; corolla tube 12-31mm, lobes 3-4.5mm long.

Fruit black, round, 5-7mm.

K1,3/6,7; 750-1650m; I-II, XII *

Semi-evergreen bushland on rocky slopes.

Embugoi (MAA).

6. *Pavetta elliottii* K.Schum. & K.Krause

(incl. *P. trichocalyx* Brem.)

Shrub 0.5-2.5m. Leaves ovate or elliptic, base subcordate or rounded (cuneate), apex obtuse to shortly acuminate, 2.5-10 by 1.5-5cm, pubescent above, tomentose beneath. Flowers white or cream, in corymbs terminal on leafy branches; corolla tube 15-28mm, lobes 5-8mm long. Fruit black, 8-9mm.

K46; 1400-1900m; I-IV, VI-VIII, XI (II, VI).

Bushland or bushed grassland, often in rocky places; also in forest margins and along rivers.

Munjugairia (KIK), Moniet (SEB).

7. *Pavetta gardeniifolia* A.Rich. var. *gardeniifolia*

[*P. assimilis* Sond., *P. hochstetteri* Brem., *P. petraea* Brem., *P. termitaria* Brem.]

Shrub 0.5-3m. Leaves elliptic to obovate, base cuneate,

apex acute to rounded, 2-8 by 1-4.5cm, glabrous or nearly so. Flowers cream to yellow, in corymbs terminal on short leafless branches or sessile; corolla 4-15mm, lobes 5-7mm long. Fruit black, round, 6-8mm.

K123467; 800-2150m; I-VII, XI-XII (I)

Rocky semi-evergreen bushland, or in dry forest on rocky ground

Mwinthongi (KAM), Chorlwet (KIP), Olpiron (MAA), Etoboka (TUR). The branches are used as friction-firesticks; the wood is used for building poles.

8. *Pavetta hymenophylla* Brem.

(*P. dalei* Brem.) RARE, possibly EXTINCT

Shrub about 3m. Leaves elliptic, base cuneate, apex acute to acuminate, 9-20 by 3-8cm, glabrous or nearly so. Flowers white, in corymbs terminal on leafy branches; corolla tube 3-8mm, lobes 6-10mm long. Fruit black, round, about 10mm.

K4; 1750-1950m; X-XI *

Moist forest on south and NE slopes of Mt Kenya (but not collected since 1964).

9. *Pavetta linearifolia* Brem.

RARE

Shrub 1.5-4.5m. Leaves linear, base obtuse, apex acute, 7-12 by 0.8-1.6cm, glabrous or fine-tomentose beneath. Flowers white, in corymbs terminal on leafy branches; corolla tube 7-8mm, lobes 4-5mm long. Fruit black, round, 5-6mm.

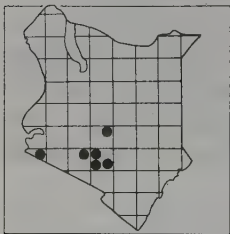
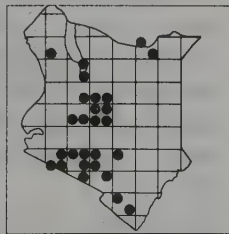
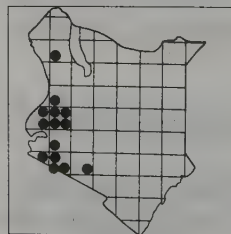
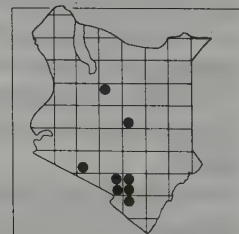
K7; 1-450m; XI *

(Riverine) bushland: lower Tana and lower Galana area.

Kullami (BON).

10. *Pavetta oliverana* Hiern var. *oliverana*

Shrub 1-3m; young branches angular. Leaves elliptic, base obtuse or rounded, apex shortly acuminate, 5-13 by 2-7cm, pubescent above, tomentose beneath. Flowers white or yellow, in corymbs terminal on leafy

*Pavetta elliottii**Pavetta gardeniifolia**Pavetta oliverana**Pavetta sepium*

branches; corolla tube 19-34mm, lobes 4-6mm long. Fruit black, round, 8-10mm, with persistent calyx.

K2356; 1300-2250m; II-III, VI-IX, XI *

Forest, wooded or bushed grassland, riverine, or in rocky bushland.

Kobietiabosnet (KIP), Ol-bungo (MAA), Kipchochin, Terwech (MAR), Ekwanget (TUR).

11. *Pavetta sansibarica* K.Schum.

var. *trichosphaera* (Brem.) Bridson

(*P. trichosphaera* Brem., *P. shimbensis* Brem.)

Shrub 3-4.5m. Leaves elliptic, base cuneate, apex acuminate, 9-20 by 4.5-8cm, sparsely stiff-hairy. Flowers white (?) in corymbs terminal on leafy branches; corolla tube 16-20mm, lobes 8-11mm long. Fruit black, round, 8-10mm across.

K7; 300-400m; -*

Moist forest (Shimba Hills).

12. *Pavetta sepium* K.Schum.

(*P. scandens* Brem., *P. capillipes* Brem.)

Shrub 1.5-3m (elsewhere often climbing). Leaves elliptic, base cuneate or obtuse, apex acute to obtuse, 3.5-11 by 1-4.3cm, glabrous to pubescent. Flowers white or cream, in corymbs terminal on short leafless spurs or branches; corolla tube 4-13mm, lobes 3-6mm long. Fruit grey, round, about 5mm.

1. Corolla tube hairy outside - var. *sepium*

* 2. Corolla tube glabrous outside

2. Corolla tube 4.5-6mm, leaves hairy -

var. *glabra*

* Corolla tube 8-12mm, leaves glabrous

- var. *merkeri*

- var. *sepium*: K67; 900-1400m; I, V, XII *

Groundwater or riparian forest, rocky bushland (Loitokitok and Taita Hills)

- var. *glabra* Brem.: K4; 1000m; -*

Rocky bushland (Anno 1906 near Kibwezi)

- var. *merkeri* (K.Krause) Bridson: K146; 550-1200m; I, XII *

Rocky bushland or riverine.

13. *Pavetta sphaerobotrys* K.Schum.

ssp. *tanaica* (Brem.) Bridson

(*P. tanaica* Brem., *P. manomoca* Brem.)

VULNERABLE

Shrub or tree 3-9m; bark smooth, mottled grey-brown.

Leaves (narrowly) elliptic, base cuneate, apex acumi-

nate, 5-13 by 1.5-7cm, glabrous. Flowers white (?), terminal on leafy branches; corolla tube 7-8mm, lobes 4-6mm long. Fruit greyblack, round, 6-7mm.

K7; 1-100m; I *

Riverine forest or woodland along the lower Tana River; endemic.

Manomoka (BON), Mwana-moka (ILW), Muchumi, Mungombe (PKM).

14. *Pavetta stenosepala* K.Schum.

ssp. *stenosepala*

[*P. mangallana* K.Schum. & K. Krause]

Shrub 0.3-2m. Leaves (narrowly) obovate, base cuneate, apex acute to acuminate, 4-15 by 1.5-5cm, pubescent or sandpapery beneath. Flowers white, in corymbs terminal on leafy branches; corolla tube 10-20mm, lobes 3-5.5mm long. Fruit purple to black, round, 5-7mm.

K7; 1-450m; II-VI, X *

Forest.

Mwango, Mpelepele (SWA), Mzungula, Mpepo (GIR)

15. *Pavetta subcana* Brem.

(*P. albertina* S.Moore, *P. unguiculata* Brem.)

Shrub 0.5-3(5)m. Leaves elliptic, base cuneate, apex obtuse (acute), 2-8 by 0.5-3cm, glabrous (var. *longiflora*) or pubescent (var. *subcana*). Flowers white or pale yellow, in corymbs on leafless spurs or branches (rarely on leafy branches); corolla tube 12-22mm, lobes 4-6mm long. Fruit black, round, 5-8mm.

- var. *subcana*; young branches hairy. Collected (anno 1899) at Lake Turkana.

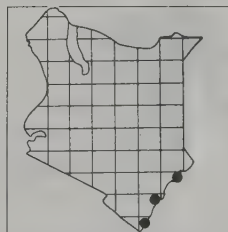
- var. *longiflora* (Vatke) Bridson; young branches glabrous.

K234546; 600-1800m; I, III, V-VIII, IX-XII *

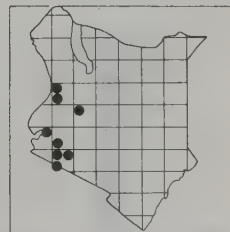
Riverine woodland, lakesides; often on anthills.

Mwemba (KAM), Ol-obai, Engogomadhi (MAA).

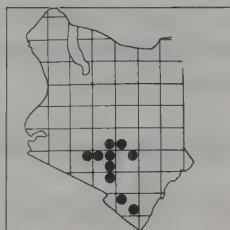
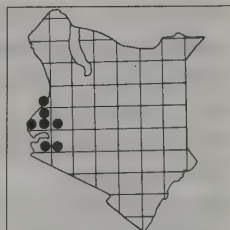
An infusion is employed against cattle fleas by the Maasai.



Pavetta stenosepala



Pavetta subcana

*Pavetta teitana**Pavetta ternifolia***16. *Pavetta tarenoides* S.Moore**

RARE, ?VULNERABLE

Shrub or tree 2-9m (rarely described as climbing). Leaves elliptic or slightly ovate, base cuneate, apex acute or slightly acuminate, 6-17 by 2.5-7.5cm, glabrous. Flowers white, in corymbs terminal on leafy branches; corolla tube 12-22mm, lobes 7-12mm long. Fruit black, round, about 7mm.

K7; 300-450m; I-II, V-VII, XII *

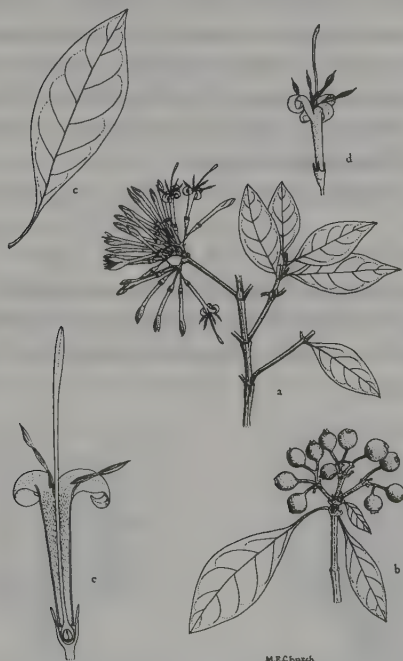
Forest. Endemic to Shimba Hills.

Mwango, Mtasubuhi (SWA).

17. *Pavetta teitana* K.Schum.

RARE

Shrub or tree 1-6m. Leaves (narrowly) elliptic, base cuneate, apex acute or slightly acuminate, 9-18 by 2.5-5.5cm, bullate, finely tomentose beneath. Flowers cream or yellowish green, in corymbs terminal on

*Pavetta abyssinica* Fresen.

a: flowering branchlet ($\times \frac{1}{2}$). b: fruiting branchlet ($\times \frac{1}{2}$). c: leaf ($\times \frac{1}{2}$).
d: flower ($\times \frac{1}{2}$). e: L.S. flower ($\times \frac{1}{2}$).
a, d & e: from Bally 8814; b & c: from Verdcourt 1822.

leafy branches; corolla tube 8-9mm, lobes 5-6mm long. Fruit purple-black, round, 7-8mm.

K467; 650-1500m; I-II, IV, VI-VIII, XI-XII *

In rock crevices or in rocky riverine forest. Endemic to Kenya.

Musemba-sya-kamwe (KAM).

18. *Pavetta ternifolia* (Oliv.) Hiern(*P. yalaensis* Brem.)

Shrub or tree 2-4m. Leaves in 3 or opposite, elliptic-ovate, base cuneate, apex acuminate, 4-15 by 1-4.5cm, glabrous (except for domatia). Flowers white or pale yellow, in corymbs terminal on leafy branches; corolla tube 4-6mm, lobes 4.5-7mm long. Fruit black, round, 6-8mm.

K35; 1500-1950m; I-V, VIII-X *

Forest, riverine forest, or forest remnants (thickets).

Belbeliet (KIP), Amuutu, Shitondo, Shitoto (LUH),

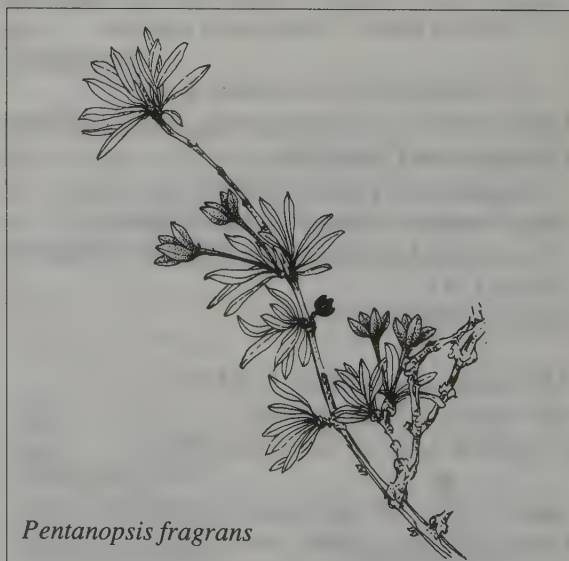
Adero-moroko (LUO).

19. *Pavetta uniflora* Brem.(*P. sennii* (Chiov.) Bridson)

Shrub about 2 (-?)m. Leaves on short spurs, obovate, base cuneate, apex obtuse or mucronate, 1.2-5 by 0.6-2cm, glabrous. Flowers white, solitary on leafy spurs; corolla tube 30-43mm, lobes 4.5-6mm long. Fruit dark grey, round, 5-6mm.

K7; 1-350m; V, XI *

Forest or bushland (Arakubo-Sokoke, Dzombo, Jaribuni, Mangea and Dakabuko Hill).

*Pentanopsis fragrans*

38. PENTANOPSIS

Leaves often on short shoots; may therefore appear whorled. Stipules sheathing. Corolla lobes 4. Fruit a capsule.

***Pentanopsis fragrans* Rendle**

Shrub 1-2m. Leaves narrowly elliptic, base acute, 1-2.8 by 0.1-0.5cm, sandpapery to almost glabrous. Flowers white (tube flushed purple), terminal in fascicles of 1-3; corolla tube 20-37mm, lobes 10-15mm long. Fruit ellipsoid, 4.5-7mm long.

K1; 750m; IV *

Collected once at Dandu, on black cotton soil.

39. PENTAS

Stipules divided into thread-like segments. Corolla lobes 4. Fruit a capsule.

1. Calyx lobes subequal; flowers white or pink

3. *P. schimperana*

- * 1-3 calyx lobes much larger than others; flowers red 2

2. Leaves 1.5-5cm wide; nerves 7-10 1. *P. bussei*

- * Leaves 0.3-1(2)cm wide; nerves 3-6

2. *P. parvifolia*

Note: *Pentas zanzibarica*, with unequal calyx lobes and pink or lilac flowers, occasionally reaches 1.5 meter, but is more a herb than a true shrub.

1. *Pentas bussei* K. Krause

Woody herb or shrub 0.5-2(4)m, sometimes scrambling. Leaves ovate, base cuneate, apex acute or acuminate, 3.5-15 by 1.5-5cm, sparsely hairy above, white-velvety beneath. Flowers red, in axillary and terminal many-flowered cymes; corolla tube 7-20mm, lobes 3-10mm long. Fruit oblong, 3-6mm long.

K7; 1-450m; I-III, V-XII

Coastal bushland, forest margins, thickets.

Mforfor dume (SWA), Mdobe (DIG). A root decoction is used against VD by the Digo.



Pentas parvifolia

2. *Pentas parvifolia* Hiern

Shrub 0.5-2m, occasionally scrambling to 3.5m. Leaves ovate or elliptic, base cuneate, apex acute, 1-9 by 0.3-1(2)cm, sparsely pubescent above, fine-pubescent beneath. Flowers red, in (sub) terminal few- to many-flowered cymes; corolla tube 7-18, lobes 2.5-10mm long. Fruit oblong, 3-6mm long.

K123467; 1-350m (coast) and 650-2400m; I-XII (V, XI)

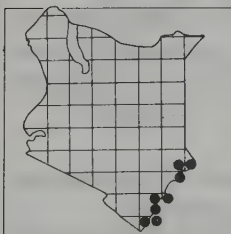
Inland in rocky sites in bushland or bushed grassland; on the coast usually in dry forest.

Kakalla (BOR), Kirere (EMB), Mwathambiti (KAM), Gora (SOM), Kinyeri (TAI).

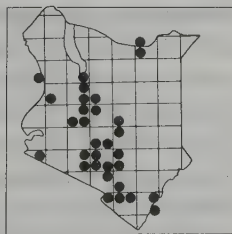
3. *Pentas schimperana* (A.Rich.) Vatke

ssp. *schimperana*

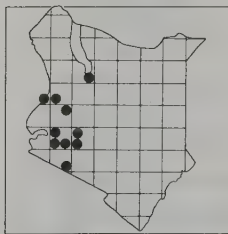
Woody herb or shrub 0.5-2.5m. Leaves ovate, base



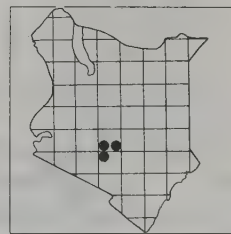
Pentas bussei



Pentas parvifolia



Pentas schimperana



Polysphaeria cleistocalyx

cuneate to rounded, apex acute to acuminate, 6-21 by 2-8cm, sparsely rusty-hairy. Flowers white or pale pink, in terminal lax branched cymes (many-flowered); corolla tube 5-14mm, lobes 3-7mm long. Fruit oblong, 4-6mm long.

K12356; 2100-2700m; I, IV, VI, IX-XII *

Forest clearings.

40. POLYSPHAERIA

Branches coming from above the nodes. Flowers sessile, in small axillary clusters, bearded at the throat; lobes 4-5. Fruit a berry.

1. Calyx enclosing the young bud (central Kenya)

1. *P. cleistocalyx*

- * Calyx never completely enclosing the young bud 2

2. Leaves 4-5 x as long as wide (central Kenya)

2. *P. lanceolata*

- * Leaves never so narrow (coastal species) 3

3. Corolla densely pubescent with large spreading hairs

4. *P. parvifolia*

- * Corolla glabrous, or pubescent with small hairs

3. *P. multiflora*

1. *Polysphaeria cleistocalyx* Verdc. ined.

var. *cleistocalyx*

Map p. 531

Shrub or tree 3-5m. Leaves narrowly elliptic, base cuneate, apex acute, 5-14 by 2-4cm, glabrous. Flowers white, in dense clusters; tube about 4mm, lobes 2-2.5mm long. Fruit white to purple-black, round, 7-10mm.

K4; 700-1300m; IV, XII *

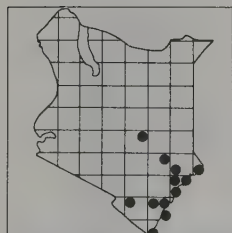
Riverine forest on rocky slopes.

2. *Polysphaeria lanceolata* Hiern var. *lanceolata*

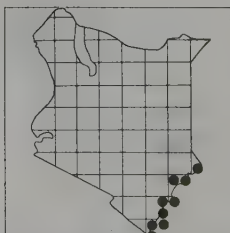
Much like *P. cleistocalyx*. Flowers pale lilac.

K4; about 700m; IV *

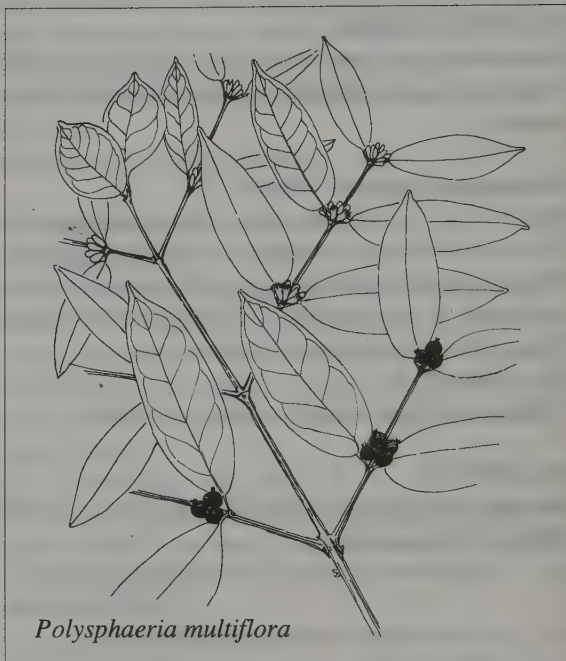
Kindaruma dam, collected once.



Polysphaeria multiflora



Polysphaeria parvifolia



Polysphaeria multiflora

3. *Polysphaeria multiflora* Hiern

Shrub or tree 1-6m. Leaves (narrowly) elliptic, base cuneate, to rounded, apex acute or obtuse, 3-13 by 1.5-4cm, glabrous. Flowers white, in dense clusters; corolla tube 3-4mm, lobes 1.5-2mm long. Fruit white, red or black, round, 7-9mm.

K7; 1-250(1150)m; I-III, V, VII-XI, XI *

(Riverine) forest or woodland, coastal thicket, bushed grassland.

Msamisami (SWA), Mumanga (GIR), Mubuna (ILW), Muroro (PKM). Fruit edible; Giriama use leaves and roots to alleviate sore muscles. Fresh leaves are used to poultice wounds.

- ssp. *multiflora*: inflorescence sessile.

- ssp. *pubescens* Verdc. ined.: inflorescence stalked.

4. *Polysphaeria parvifolia* Hiern

Shrub or tree 1.5-6m. Leaves elliptic or ovate, base cuneate to subcordate, apex subacute to acuminate, 0.5-9 by 0.5-4.5cm, glabrous or pubescent. Flowers white, in sessile clusters; corolla tube 3-4.5mm, lobes 1.5-2mm long. Fruit red, round, 7-10mm.

K17; 1-450m; I-VI, IX, XI-XII.

Drier types of coastal forest, *Brachystegia* woodland, often at margins or in secondary bushland.

Msamisami, Mchesi, Mlapaa (SWA), Mtsonga nyamba

(DIG), Mumangwe, Mangi (GIR), Sasacha (SAN).
Fruit edible; wood used for building poles.

41. PSEUDOMUSSAENDA

Flowers 5-merous, in terminal cymes; 1 or more sepals of some flowers enlarged into a coloured lamina. Fruit a capsule.

1. Coastal species

2. *P. sp. nov.*

* Inland species

1. *P. flava*

1. *Pseudomussaenda flava* Verdc.

Shrub 1-3.5m. Leaves elliptic, base cuneate, apex acuminate, 2-11 by 1-5cm, pubescent. Flowers yellow, with cream or yellow enlarged sepal, in lax cymes; enlarged sepal 1.5-5.5 by 1-4.5cm, rounded or subcordate at base; corolla tube 25-35mm, lobes 4-8mm long. Fruit oblong, about 7mm long.

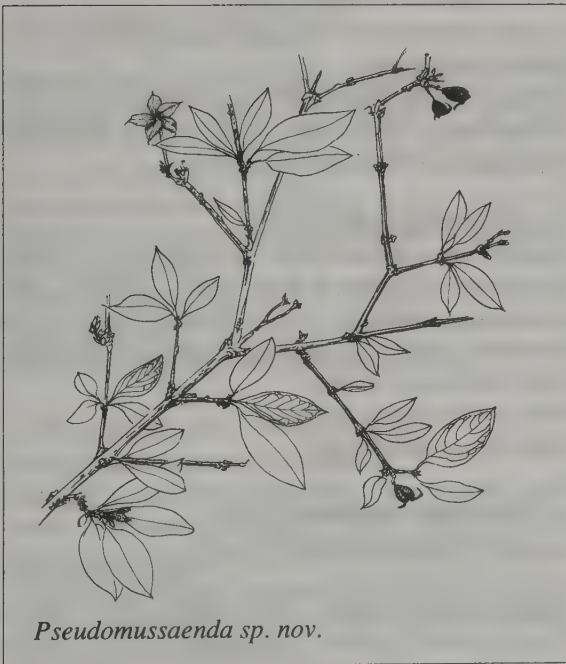
K2; collected at L. Turkana and in Songot Hills (anno 1933).

Rocky sites in wooded grassland or bushland.

2. *Pseudomussaenda sp. nov.*

Shrub 2m resembling *Heinsia crinita* but calyx lobes not spatulate, fruits dehiscent and ribbed.

K7; Luke & Robertson 1517, Boni.



42. PSYCHOTRIA

Stipules often deciduous, but can be seen at shoot apices. Flowers heterostylous, in terminal inflorescences (usually a panicle). Calyx with a tube and short lobes. Fruit a drupe, 1-2-seeded.

1. Inflorescence a single, dense, round cluster, at the base surrounded by bracts; fruit blue 2

* Inflorescence more loose, although its components may be dense 3

2. Coastal species; calyx lobes 0.5-4mm long

20. *P. tanganyikensis*

* Western species; calyx lobes 5-10mm long

13. *P. peduncularis*

3. Peduncle flat, more or less winged

9. *P. lauracea*

* Peduncle round 4

4. Nodules (black dots or stripes) scattered on leaves 5

* Nodules absent or only along the midrib 8

5. Shrub of Ngangao forest; corolla tube glabrous inside; petiole 1-5mm 1. *P. alsophila*

* Plants of other sites; corolla tube hairy inside; petiole 2-90mm 6

6. Plants of coastal forests, with glabrous young branches; leaves 10-25 cm long

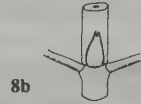
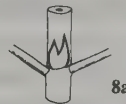
5. *P. faucicola*

* Plants either of different habitats, or (if in coastal forest) with (pubescent young branches and) leaves 3-10cm long 7

7. Plants of inland sites above 500m, or, if between 250-500m then with distinctly crinkly margins 8. *P. kirkii*

* Plants of coastal forest, or below 100m, or if from dry bushland to 350m, then without crinkly margins 16. *P. punctata*

8. Stipules obviously bilobed 9



* Stipules entire or very shortly toothed at apex 13

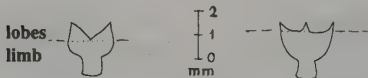
9. Coastal plants, below 500m; nodules 2 knobs, at base of leaf midrib beneath 10

* Inland plants, above 1200m; no knobs at base of midrib 11

10. Flowers in panicles; calyx limb 1.5-2mm long
2. *P. amboniana*
- * Flowers in fascicles; calyx limb 0.5-0.75mm long
7. *P. holtzii*
11. Tree to 24m; fruits smooth; leaf domatia raised
11. *P. mahonii*
- * Shrubs/trees to 7.5m; fruits grooved when dry; domatia not raised
12
12. Leaves with reddish hairs on venation beneath
6. *P. fractinervata*
- * Leaves glabrous
12. *P. orophila*
13. Domatia present on lower leaf surface (may



- not be obvious in *P. riparia*)
14
- * Domatia absent
18
14. Corolla 10-12mm long; fruit blue; Taita Hills
4. *P. crassipetala*
- * Corolla 5-9mm long; fruit red
15
15. Taita Hills species with reddish hairs on leaf venation beneath
15. *P. pseudoplatyphylla*
- * Plants either with glabrous leaves, or of coastal forest
16
16. Stipules 1-2cm long, glabrous (except margins)
12. *P. orophila*
- * Stipules less than 1cm long, if almost 1cm then hairy
17
17. Stipules hairy; Kakamega forest
3. *P. bagshawei*
- * Stipules glabrous or hairy; central and coastal Kenya
17. *P. riparia*
18. Coastal species, alt. below 500m
19
- * Inland species, alt. above 1000m
20
19. Calyx limb (see ill.) 0.5-0.8mm long



10. *P. leucopoda*
20. Taita Hills/Kasigau species
21
- * Western species
24
21. Leaves with reddish hairs on venation beneath
15. *P. pseudoplatyphylla*

- * Leaves glabrous
22
22. Stipules 25-30mm long; Kasigau
19. *P. taitensis*
- * Stipules 7-11mm long; Taita Hills
23
23. Peduncle 6cm long; corolla tube 4mm long
14. *P. petiti*
- * Peduncle 2.5cm long; corolla tube 1-3mm long
21. *P. sp. B*
24. Stipules 3-5mm long
18. *P. schliebenii*
- * Stipules 14mm long
22. *P. sp. C*

1. *Psychotria alsophila* K.Schum.

Shrub 1.5-1.8(3)m. Leaves (narrowly) elliptic, base cuneate, apex acute or obtuse, 2-12 by 0.6-4.5cm, glabrous; nodules conspicuous. Flowers white, several per stalked lax panicle; corolla 7-10mm long. Fruit red, round, 5-7.5mm.

K7; Ngangao forest in Taita Hills, 1650-1800m; IX *

2. *Psychotria amboniana* K.Schum.

Shrub 0.5-3m. Leaves (narrowly) elliptic, base cuneate to attenuate, apex acute or shortly acuminate. 1.5-8 by 0.5-3.5cm, glabrous (var. *amboniana*) or pubescent [var. *velutina* (Petit) Verdc.]; nodules 2, near lower midrib; domatia often present. Flowers white, in several-flowered panicles to 4cm long; corolla 7-10mm long. Fruit red, round to ovoid, 4-6mm across. K7; 1-400m; I, III-VII, IX, XII.

Forest, riverine forest, *Brachystegia* woodland, (secondary) bushland.

Mwango, Mpelepele (SWA), Mukamasi (DIG), Mbogaboga (GIR), Abodi (BON). A leaf infusion is used against headache by the Digo.

3. *Psychotria bagshawei* Petit

Shrub 1-5m. Leaves elliptic, base cuneate, apex acute or shortly acuminate, 4-20 by 2-8cm, glabrous; nodules absent, domatia present. Flowers white, in lax branched panicles to 8cm long; corolla 5-8.5cm long. Fruit red, round, 5-7mm.

K35; 1550-1700m; IV *

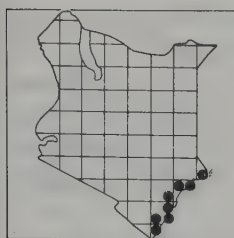
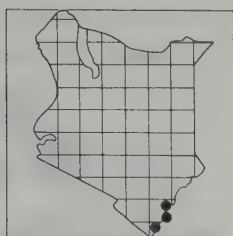
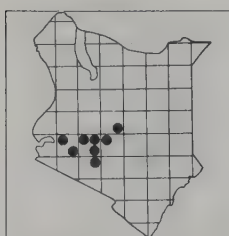
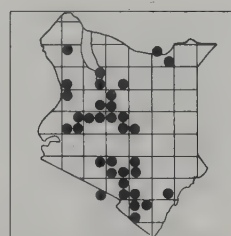
Rain forest; Kakamega.

4. *Psychotria crassipetala* Petit

(*Grumilea riparia* sensu KTS, p.p.)

VULNERABLE

Shrub or tree 3.5-12m. Leaves elliptic, base cuneate, apex rounded to shortly acuminate, 6-15 by 3-9cm,

*Psychotria amboniana**Psychotria faucicola**Psychotria fractinervata**Psychotria kirkii*

glabrous; nodules absent, domatia present. Flowers white, in branched panicles to 9cm long; corolla 10-12mm long. Fruit blueish (?), round, about 8mm.

K7; 1300-1850m; V, VII, IX *

Taita Hills forests (endemic).

Note: I believe that the label of Dale K3831, "Witu", is a mistake; R.B. Faden believes it is a different taxon.

5. *Psychotria faucicola* K.Schum.

Shrub 0.9-3.6m. Leaves ovate or elliptic, base cuneate, apex acute or acuminate, 10-25 by 4-12cm, glabrous; nodules present. Flowers white or cream, in panicles to 14cm long; corolla 3.5-5mm long. Fruit red, round or bilobed, 4.5-5.5mm long.

K7; 1-400m; V-VI *

Forest, or on limestone outcrops.

A root decoction is used against diarrhoea.

6. *Psychotria fractinervata* Petit

(*Grumilea exserta* K.Schum.)

Shrub or tree 1-7.5m. Leaves elliptic, base cuneate, apex acute to acuminate, 6-20 by 2-8.5cm, glabrous except for ferruginous hairs on veins beneath; nodules absent; domatia usually present. Flowers white or cream, in panicles to 16cm long; corolla thick, 7.5-13mm long. Fruit red, round or ellipsoid, 5-7mm long, grooved when dry.

K3456; 1900-2550m; I, III, V, VII-XII

(*Ocotea*) forest or bamboo.

Mukomakoma (KIK), Oljartuiyan (MAA).

7. *Psychotria holtzii* (K.Schum.) Petit

(*Anthospermum holtzii* K.Schum.)

Shrub 0.5-3m. Leaves elliptic, base cuneate, apex acute or obtuse, 1-4 by 0.5-1.5cm, glabrous (var. *holtzii*) or pubescent (var. *pubescens* Verdc.); nodules 2, at base of midrib; domatia usually present. Flowers white, in sessile fascicles; corolla 4.5-6.5mm long. Fruit red, round about 5mm.

K7; 1-500m; I, III-IV, VIII *

Forest (Mrima, Buda, Shimba Hills, Mangea).

Mangwe (SWA). Leaf smoke is inhaled against head-colds by the Digo.

8. *Psychotria kirkii* Hiern

(*P. kaessneri* Brem., *P. nairobiensis* Brem., *P. volkensii* K.Schum., *P. tarambassica* Brem.)

Shrub 1-3m. Leaves elliptic or (ob)ovate, base cuneate, apex acute or shortly acuminate, 1.5-15 by 0.5-8cm, glabrous to pubescent; nodules many. Flowers white to yellow-green, in panicles or groups of umbels to 10cm long; corolla 4.5-10mm long. Fruit orange or red, round, 5-7mm, or two-lobed.

a. leaves glabrous

var. *nairobiensis* (Brem.) Verdc.

* leaves hairy

b

b. leaves sparsely pubescent

var. *hirtella* (Oliv.) Verd.

* leaves densely pubescent

c

c. leaves 1.5-7cm long; petiole 1-6mm

var. *volkensii* (K.Schum.) Verdc.

* leaves 7.5-15cm long; petiole 5-20mm

var. *tarambassica* (Brem.) Verdc.

(of all vars.) K123467; 250-2100 (2250)m; I-II, IV-XII (VI-VII)

Forest (margins), (secondary) bushland, bushed or wooded grassland; often in rocky sites.

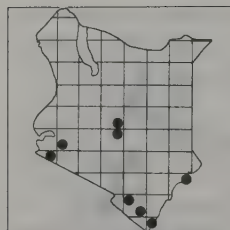
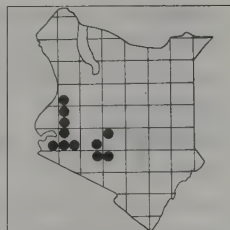
Var. *tarambassica* is the most specialized var. and occurs in drier forest and evergreen bushland between 1800 and 2550 m.

Gadala (BOR), Gedimariti (SOM), Kakurak (TUG), Lomoiwesi (NAN), Ol-peron (NDO).

9. *Psychotria lauracea* (K.Schum.) Petit

(*Grumilea lauracea* K.Schum.)

Shrub or tree 1-6m. Leaves elliptic or ovate, base cuneate to rounded, apex acute or obtusely acuminate, 5-22 by 3-10cm, glabrous; nodules present or absent,

*Psychotria lauracea**Psychotria mahonii*

domatia usually absent. Flowers white or greenish, in panicles 7-18cm long; panicles with flattened, often winged, peduncle; corolla 4-5.5mm long. Fruit red, round, 4-6mm.

K4567; 1-1900m; I-II, VI, VIII-IX, XI-XII *

Moist evergreen forest, may be locally common.

Msigande (SWA), Mbogaboga (DIG), Njatta-narok (MAA). A root decoction is used by the Maasai to help the afterbirth; stems are used to make arrows.

10. *Psychotria leucopoda* Petit

Shrub 0.5-2.5m. Leaves (narrowly) elliptic, base cuneate, apex acuminate, 5-18 by 1-7cm, glabrous or ciliate along midrib; nodules in midrib, difficult to see. Flowers white, in panicles 3-12cm long; corolla 6-8mm long. Fruit red, ellipsoid, 6-8mm long, ribbed. K7; 1-450m; VIII*

Evergreen forest: coast S of Mombasa.

11. *Psychotria mahonii* C.Wright

[*P. megistosticta* (K. Schum.) Petit, *Grumilea bequaertii* De Wild, *G. megistosticta* S. Moore]

Shrub 2.5m or more often tree 5-24m; bark smooth, pale grey-brown. Leaves elliptic to slightly obovate, base cuneate or rounded, apex acuminate, 6-15(23) by 2.5-8(10)cm, glabrous or with long reddish hairs along the venation; nodules absent, domatia conspicuous. Flowers white, in panicles 4-18cm long; corolla 6.5-9.5mm long. Fruit red, round, 5-6mm.

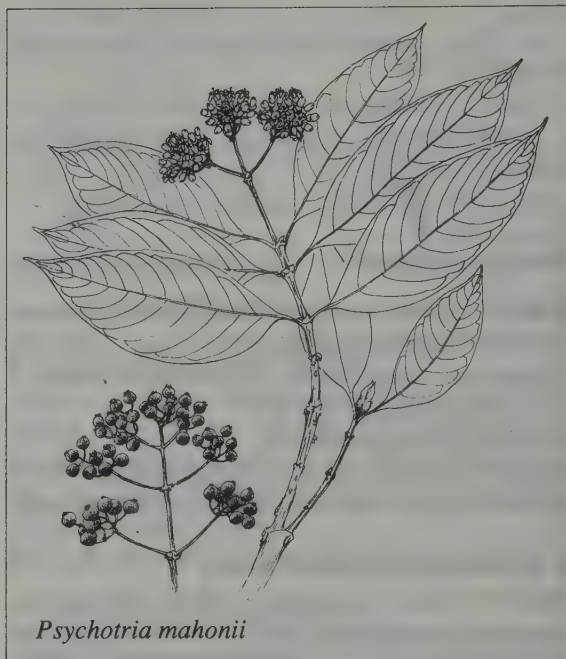
K345; 1400-2400m; II-III, V-XII

Moist (*Ocotea*) forest, swamp forest or riverine.

Muiro, Mkomokomo, Rahigi (KIK), Kombeiet (KIP).

- var. *puberula* (Petit) Verdc., mostly glabrous leaves. Forests.

- var. *pubescens* (Robyns) Verdc., mostly with red hairs on midrib. Riverine.

*Psychotria mahonii*

12. *Psychotria orophila* Petit

(*Grumilea elliottii* K. Schum. & K. Krause)

Shrub or tree 2-6m. Leaves elliptic, base cuneate, apex obtuse to slightly acuminate, 7-27 by 3.5-13cm, glabrous; nodules absent, domatia present. Flowers white or yellow, in panicles 4-14cm long; corolla 4-9mm long. Fruit red, ellipsoid, 6-7mm long.

K13456; 1650-2650m; I-VII, X-XII

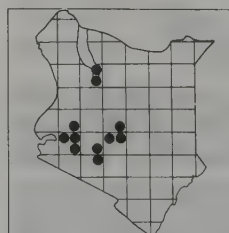
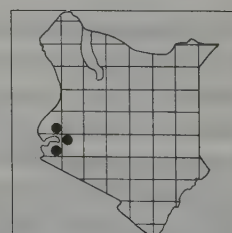
Moist evergreen forest.

Mkambokombo (KIK), Olobarat (MAA).

13. *Psychotria peduncularis* (Salisb.) Steyererm.

[*Cephaelis peduncularis* Salisb., *Uragoga suaveolens* (Hiern) K. Schum.]

Shrub 0.5-2m. Leaves elliptic, base cuneate (rounded), apex acute to acuminate, 10-26 by 6-13cm, glabrous or with reddish hairs; nodules absent. Flowers white, in

*Psychotria orophila**Psychotria peduncularis*

dense heads with bracts, 2-3cm long; corolla 4.5-9.5mm long. Fruit blue or purplish, ellipsoid, 5.5-8mm long.

K35; 1200-1650m; *

Moist forest.

Obokeren (LUO).

14. *Psychotria petiti* Verdc. VULNERABLE

Shrub or tree 3-9m. Leaves elliptic, base cuneate, apex shortly acuminate, 7-15 by 3-5.5cm, glabrous; nodules absent. Flowers white, in panicles 2.5-7cm long; corolla about 6mm long. Fruit red, round, 11-16mm, grooved when dry.

K7; 1400-1850m; V *

Endemic to Taita Hills evergreen moist forest.

Note: A similar shrub/tree of 3-4m occurs on Vuria, about 2000-2100m. The fruits are smaller (5-6mm) and grooved even when fresh; coll. Faden 72/256, Taita Hills Exp. 166. Faden and I believe this is a new species, which would then be ENDANGERED; Verdcourt feels it is merely a form of *P. petiti*.

15. *Psychotria pseudoplatyphylla* Petit

(*Grumilea platyphylla* of KTS)

RARE

Shrub or tree 3-4m. Leaves elliptic, base cuneate, apex shortly (obtusely) acuminate, 12-22 by 5-11cm, reddish-hairy on venation; nodules absent, domatia sometimes present. Flowers white or yellow, in panicles 10-15cm long; corolla 6.5-7.5mm long. Fruit red, round, 4.5-10mm, grooved.

K7; 1500-1850m; VII, IX *

Evergreen moist forest (Taita Hills).

16. *Psychotria punctata* Vatke

Shrub 0.5-3m. Leaves elliptic or ovate, base cuneate, apex rounded to acute, 3-13 by 1-6cm, glabrous or puberulous; nodules many. Flowers white or cream, in panicles 3-8cm long; corolla 6-9mm long. Fruit red, round, 5-9mm, or two-lobed.

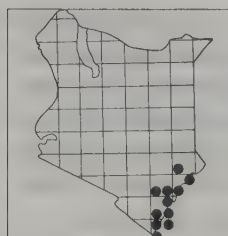
K7; I-VIII, X, XII (IV)

Mwango (SWA).

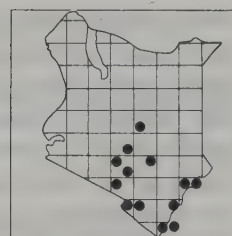
- var. *punctata*: young branches glabrous. In littoral thicket, rarely in dry forest; 1-100m.

- var. *minor* Petit: young stems pubescent; leaves thick, 1-3.5cm long. In dry bushland; 150-350m.

- var. *tenuis* Petit: young stems pubescent; leaves thin, 3-10cm long. In forest; 1-450m (Arabuko, Shimba).



Psychotria punctata



Psychotria riparia

17. *Psychotria riparia* (K.Schum. & K.Krause) Petit (*Grumilea riparia* K.Schum. & K.Krause)

Shrub or tree 1-6m. Leaves elliptic or slightly obovate, base cuneate, apex acute or shortly acuminate, 5-20 by 1.5-10cm, glabrous (var. *riparia*) or with reddish hairs (var. *puberula*); nodules absent, domatia present. Flowers yellow or white, in panicles 4-15cm long, corolla 5-7.5mm long. Fruit red, round, 6.5-7mm.

K47; I, VIII, X-XII *

Mkembia (KAM).

- var. *riparia*: plant glabrous or nearly so. 1-100 (coast) & 650-1450m; usually riverine or in swampy sites.

- var. *puberula* Petit: plant with dense reddish hairs. 50-950m. Forest.

18. *Psychotria schliebenii* Petit

Shrub 1-3(6)m. Leaves (narrowly) elliptic to slightly obovate, base cuneate, apex acuminate, 4.5-18 by 1.5-9cm, glabrous or nearly so; nodules difficult to see along midrib. Flowers white, in panicles 1-5cm long (longer in fruit); corolla 5-7mm long. Fruit red, ellipsoid, 6.5-8mm long.

- var. *parvipaniculata* Petit - leaves 1-3.5cm wide, petiole to 1cm; peduncle 5-20mm in flower stage.

K57; 1-50m (coast) & about 1200m; IV *

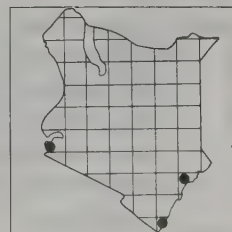
Evergreen forest.

- var. *sessilipaniculata* Petit - leaves 2.5-9cm wide, petiole 0.5-8cm long; peduncle less than 1cm in flowering stage.

K7; 1-450m; I, VIII-IX, XII *

Evergreen forest.

Munawana (DIG).



Psychotria schliebenii

19. *Psychotria taitensis* Verdc. VULNERABLE
Small tree. Leaves elliptic to slightly obovate, base cuneate, apex acute or shortly acuminate, 7.5-14 by 4-7cm, glabrous; nodules absent. Flowers white, in panicles with very dense clusters of flowers, 5-10cm; corolla about 4.5mm long. Fruit red, round, 7-8mm. K7; 1400-1600m; II *
Endemic to Kasigau evergreen forest.

20. *Psychotria tanganyikensis* Verdc.
ssp. *tanganyicensis* var. *tanganyikensis*
(*Uragoga macrophylla* K.Krause)

Shrub 1-3m. Leaves elliptic to slightly obovate, base cuneate, apex acuminate, 16-32 by 7-14cm, glabrous or with some hairs on venation beneath; nodules absent. Flowers white, in dense many-flowered heads with large bracts at base, 3-5cm long; corolla 8.5-10mm long. Fruit metallic blue, ellipsoid, 7-8.5 by 3-6mm.

K7; 300-400m; II-III *

Only known (in Kenya) from Shimba Hills forests.

21. *Psychotria* sp. B of FTEA

FEARED EXTINCT

Shrub 1.2m. Leaves elliptic, 3-12 by 1-4.6cm, glabrous; nodules absent. Flowers white, in panicles with dense round clusters; corolla 3-5mm long. Fruit not known. K7; ca. 1750m; V *

Only known from Ngangao forest, Taita Hills (Faden 72/211); not found since 1972, despite repeated searches.

22. *Psychotria* sp. C of FTEA (not seen)

Shrub 3m. Leaves elliptic, to 14 by 8cm, with some reddish hairs beneath; nodules absent. Flowers white (?), in panicles 5cm long; corolla not known. Fruit unknown.

K6; about 2550m; -*

Only known from Mau dry forest (Glover et al. 1411)

43. PSYDRAX

Similar to *Canthium*.

1. Coastal species, found below 500m
- * Inland species, found above 900m
2. Young branches square, often slightly winged; leaves very shiny above **7. *P. schimperiana***
- * Young branches not square (except in young *P. faulknerae*)

3. Inflorescence stalked (peduncle more than 5mm long) **4**
- * Inflorescence (sub) sessile **5**
4. Leaves with hairy domatia; corolla 3-5mm, fruit 5-6mm **1. *P. faulknerae***
- * Leaves glabrous; corolla 9-10mm, fruit 8-9mm long **2. *P. kaessneri***
5. Flowers 1-2 **6. *P. recurvifolia***
- * Flowers many **6**
6. Leaves on short spurs **5. *P. polhillii***
- * Leaves on normal branches **8. *P. sp. B***
7. Inflorescence subsessile; young branches square **7. *P. schimperiana***
- * Inflorescence on a stalk of more than 5mm; young branches round **8**
8. Species of evergreen bushland **3. *P. livida***
- * Species of wet forest **4. *P. parviflora***

1. *Psydrax faulknerae* Bridson

(*Canthium vulgare* sensu KTS)

Shrub or tree, sometimes slightly scandent, 3-5m. Leaves elliptic, base cuneate, apex (shortly) acuminate, 4.5-7.5 by 2-4.5cm, glabrous except for domatia. Flowers white, in dense stalked cymes; corolla 3-5mm long. Fruit black, (1-) 2-seeded, 2-lobed, 5-6mm long. K7; 1-500m; I-II, IV-V *

Dry forest, thicket, or evergreen bushland.

Mfupapu (SWA), Muberia (GIR). Used for building poles.

2. *Psydrax kaessneri* (S.Moore) Bridson

(*Canthium kaessneri* S. Moore)

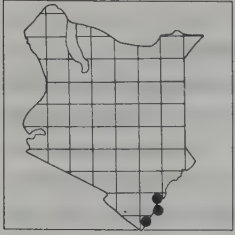
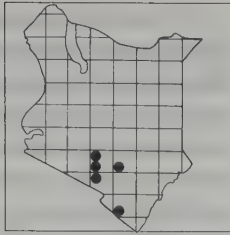
(Scandent) shrub to 4.5m. Leaves elliptic, base cuneate, apex obtuse, 3-8 by 1.5-5cm, glabrous. Flowers white, in dense stalked cymes; corolla 9-10mm long. Fruit 1-2-seeded, subglobose, 8-9mm long.

K7; collected once near Gadu (north of Kinango) in riverine thicket (anno 1902), and recently near Wema, Lunghi and at Boni.

3. *Psydrax livida* (Hiern) Bridson

(*Canthium huillense* Hiern)

Shrub or tree 3-9m. Leaves ovate or elliptic, base cuneate to rounded, apex (sub)acuminate, 4-13 by 2-7cm, glabrous except for domatia (to hairy, outside Kenya). Flowers greenish-cream to -yellow, in dense stalked cymes; corolla 2.5-5mm long. Fruit black, 1-2-seeded, 4-6mm long.

*Psydrax faulknerae**Psydrax livida*

K47; 900-1650m; I *

Semi-evergreen bushland on rocky hills.

Mutai/Muonu (KAM), Ruasi (KIK). The wood, which is very hard, was used for digging sticks.

4. *Psydrax parviflora* (Afz.) Bridson

(incl. *Canthium rubrocostatum* Robyns)

Tree 7-24m (less often a shrub); bark slightly cracked, brown to light grey; slash smelling of almonds. Leaves ovate or elliptic, base cuneate to rounded, apex acuminate, 5-12 by 2-7cm, glabrous (sometimes with hairy domatia). Flowers cream, in dense stalked cymes/corymbs to 5cm; corolla 3.5-5.5mm long. Fruit black, 1-2-seeded, round or 2-lobed, 5-8mm long.

K3457; 1400-2250m; II, IV, VIII-X *

Moist forest (margins)

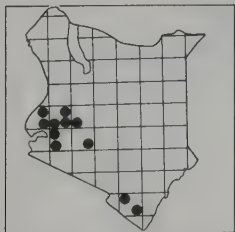
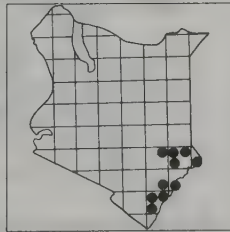
Ruathe (KIK), Masetet (KIP), Larugach (SAM), Taieswa, Cheminyuet (TUG). Good timber; wood hard.

- ssp. *parviflora*. Leaves with pale midrib and glabrous domatia. K5, Kakamega and Kericho.

- ssp. *rubrocostatum* (Robyns) Bridson. Leaves with red midrib and hairy domatia. K3457.

5. *Psydrax polhillii* Bridson

Shrub 1.5-6m with very pale branches. Leaves on short spurs, leathery, broadly elliptic, base obtuse or rounded, apex rounded, 0.8-2.8 by 0.5-2.3cm, glabrous (or nearly so). Flowers greenish cream, in subsessile cymes to 1.5cm, corolla 6-7mm long. Fruit black or

*Psydrax parviflora**Psydrax polhillii*

purple, 1-2-seeded, subglobose, 5-6.5mm long.

K17; 1-450m; VII-IX, XI *

Dry or semi-evergreen bushland, bushed grassland, and *Brachystegia* woodland.

Mukithanga (PKM).

6. *Psydrax recurvifolia* (Bullock) Bridson

(*Canthium recurvifolium* Bullock)

Climbing shrub, 3-5m. Leaves leathery, ovate or elliptic, base obtuse or rounded, apex obtuse or rounded, 1-6 by 0.7-3.5cm, glabrous (except sometimes for domatia). Flowers white or cream, in 1-2 per axil; corolla 6-7mm long. Fruit 1-seeded, obovate, 7-8mm long.

K7, Mangea, Maluganji, Kilifi; 1-450 m.

Mangrove swamp, in edge of forest.

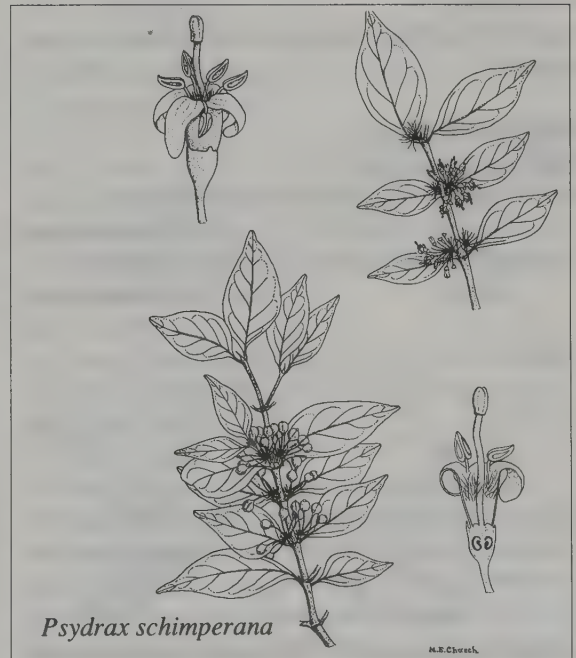
Mtengeji (SWA), Mgirimacha, Mavi-ya-panya (GIR).

7. *Psydrax schimperiana* (A.Rich.) Bridson

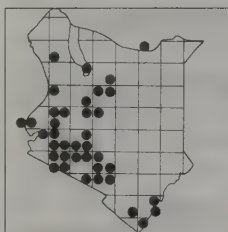
ssp. *schimperiana*

(*Canthium schimperianum* A.Rich.)

Shrub or tree 2-12m, evergreen; bark brown, fissured; young branches square, often somewhat winged. Leaves glossy above, leathery, elliptic, base cuneate (obtuse), apex gradually acuminate, 3-10 by 1-5cm, glabrous. Flowers white or cream, in (sub-)sessile

*Psydrax schimperiana*

N.E. Chenev.

*Psydrax schimperiana*

dense cymes; corolla 5-6mm long. Fruit black, 1-2-seeded, 5-6.5mm long.

K1234567; 1-50m (coast) and 700-2250m; I-II, IV-VIII, X-XII (I, V-VI).

Dry forest, evergreen bushland in rocky sites, thickets, wooded grassland in rocky sites.

Mkarambati (SWA), Gali (BOR), Barassinti (NDO), Mtumwa-muhuhu (GIR), Muthiithu (KAM), Ruathe (KIK), Maseet (KIP), Shekoye (LUH), Lango, Kango (LUO), Oltuyiesi, Ol-mwaisoro, Ol-kimiguni (MAA), Jeptue (MAR), Ruandet (NAN), Itiesi (SAM). The wood is hard, and is used for building (as timber or boriti).

8. *Psydrax* sp. B (of Kew Bull. 40, 4: 716) **RARE**

Shrub to 2m. Leaves elliptic, base cuneate or obtuse, apex obtuse, 3-8 by 1.5-3.4cm, glabrous. Flowers in sessile dense cymes; corolla 6-7mm long. Fruit about 5mm long (only known when young).

K7; 1-25m; -*

Near Kilifi in thicket or forest, at Shekiko on the Tana, and at Ozi.

44. PYROSTRIA

Similar to *Canthium*.

1. Leaves 4-12 x 1-7cm with clear nerves

1. *P. bibracteata*

- * Leaves 0.5-4.5 x 0.3-1.5cm with obscure nerves

2. *P. phyllanthoidea*

1. *Pyrostria bibracteata* (Bak.) Cavaco

[*Canthium bibracteatum* (Bak.) Hiern]

Shrub or tree 2-10m, evergreen. Leaves elliptic, base cuneate, apex acute or obtuse, 4-12 by 1-7cm, glabrous (sometimes with hairy domatia). Flowers greenish-white or -yellow, in dense subsessile umbellate cymes; corolla 4-5.5mm long. Fruit yellow to red, subglobose, 5-8mm across.

K7; 1-500m; III, XI *

In secondary bush, woodland margins, forest margins, and bushed grassland.

Mfupapu (SWA), Mumahe, Mufudzo (GIR). The fruit is edible. Wood used for building poles.

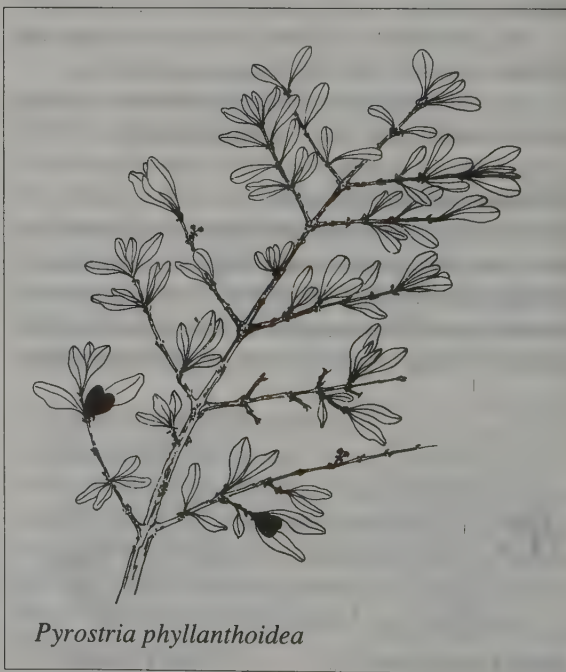
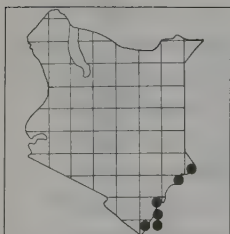
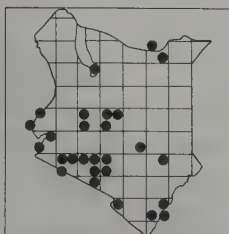
2. *Pyrostria phyllanthoidea* (Baill.) Bridson

[*Canthium phyllanthoideum* Baill.]

Shrub or tree 2-6m (dwarf forms occur); side branches often reduced to spurs. Leaves (narrowly) elliptic, base cuneate, apex rounded, 0.5-4.5 by 0.3-1.5cm, glabrous (sometimes with hairy domatia). Flowers greenish-white or -yellow, 1-5 together in (sub-) sessile umbellate cymes; corolla 4-9mm long. Fruit orange, heart-shaped, 7-9mm long.

K134567; 1-350m (coast) & 800-1900m; IV, X-XII *

Dry bushland, usually in rocky sites; also in thickets. The coastal plants have slightly longer leaves than the

*Pyrostria phyllanthoidea**Pyrostria bibracteata**Pyrostria phyllanthoidea*

inland ones.

Mtengeji (SWA), Tirro (BOR), Mfudzo (GIR), Atego (LUO), Olgogoltim (MAA), Natama (SAM). The fruit is edible.

45. ROTHMANNIA

Leaves opposite, rarely in threes in *R. urcelliformis*. Inflorescences terminal, often with solitary flowers. Corolla 5-lobed. Fruit a berry.

- | | |
|--|----------------------------|
| 1. Calyx glabrous outside | 2 |
| * Calyx pubescent outside | 5 |
| 2. Corolla glabrous outside | 3 |
| * Corolla pubescent outside | 4 |
| 3. Corolla lobes 13-18mm long; rocky bushland/wooded grassland | 1. <i>R. fischeri</i> |
| * Corolla lobes 20-30mm long; forest or <i>Brachystegia</i> woodland | 5. <i>R. ravae</i> |
| 4. Corolla tube 140-180mm long | 2. <i>R. longiflora</i> |
| * Corolla tube 33-46mm long | 4. <i>R. manganjae</i> |
| 5. Coastal species; corolla tube 135-240mm long | 3. <i>R. macrosiphon</i> |
| * Inland species; corolla tube 30-77mm long | 6. <i>R. urcelliformis</i> |

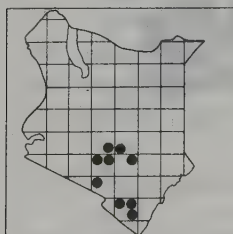
1. *Rothmannia fischeri* (K.Schum.) Bullock ssp. *verdcourtii* Bridson
(*R. fischeri* sensu KTS p.p.)

Shrub or tree 1-10m. Leaves elliptic, base cuneate or obtuse, apex acute or subacuminate, 2-11 by 1-6cm, glabrous. Flowers cream with red spots, solitary; corolla tube 55-100mm, lobes 13-18mm long. Fruit green with pale spots, round, 30-62mm.

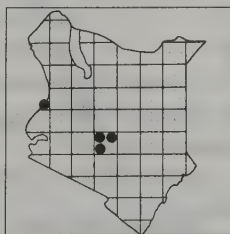
K47; 600-1600m; I-II, IV-VII, XII *

Rocky sites in bushed or wooded grassland or bushland.

Mutendeluka (KAM). The fruit is edible.



Rothmannia fischeri



Rothmannia manganjae

2. *Rothmannia longiflora* Salisb.

Shrub or tree 3-9m, or a climber. Leaves elliptic, base cuneate, apex acuminate, 6-14 by 2.5-6cm, glabrous. Flowers purple-green, solitary; corolla tube 140-180mm, lobes 13-25mm long. Fruit round or ellipsoid, 35-52mm long.

K5; collected once in Kakamega Forest (anno 1934).

3. *Rothmannia macrosiphon* (Engl.) Bridson (*R. whitfieldii* sensu KTS)

Shrub or tree 2.5-8m, sometimes scrambling. Leaves somewhat obovate, base cuneate, apex acuminate, 5-15 by 2-7.5cm, glabrous or nearly so. Flowers white with reddish markings, pendulous, solitary; corolla tube 135-240mm long, lobes 13-32mm long. Fruit only known in young stage, round, over 30mm.

K7; 50-500m; IV, VII-VIII, XI-XII *

Forest (Shimba, Buda, Marenga, Arabuko, Mangea). Mgojama (SAN). The fruit yields a blue-black dye.

4. *Rothmannia manganjae* (Hiern) Keay

Shrub or tree 3-6m. Leaves elliptic, base cuneate, apex acute or acuminate, 6-12 by 2.5-5cm, glabrous. Flowers cream with reddish marks, solitary; corolla tube 33-46mm, lobes 12-22mm long. Fruit brown to black, round, 18-40mm.

K34; 1150-1800m; II-III, VI, IX-XI *

Forest (remnants).

5. *Rothmannia ravae* (Chiov.) Bridson (*R. fischeri* of KTS, p.p.)

Shrub or tree, 3-6m. Leaves elliptic, base cuneate, apex acuminate, 5-11 by 2.5cm, glabrous (except sometimes domatia). Flowers white with reddish/purple markings, solitary; corolla tube 45-70mm, lobes 20-30mm long. Fruit green with pale spots, round or ellipsoid, 40-80mm long.

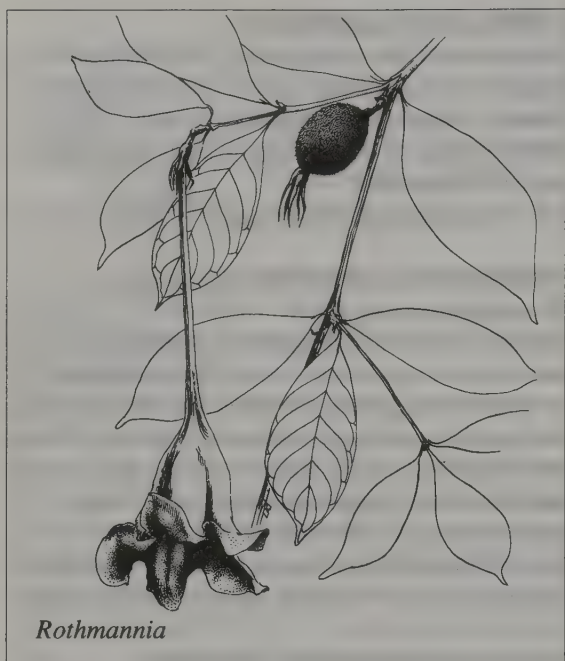
K7; 1-1000m; I, V, VII, XII *

Dry forest (Maungu Hills) or *Brachystegia* woodland (Arabuko-Sokoke, Marafa, Adu, S of Kiunga).

Mjogoma (GIR).

6. *Rothmannia urcelliformis* (Hiern) Robyns

Shrub or tree 2-9m. Leaves elliptic to slightly obovate, base cuneate, apex acuminate, 6-18 by 2-7cm, pubescent or glabrous. Flowers white or yellow with reddish-purple markings, solitary; corolla tube 30-77mm, lobes 12-45mm long. Fruit green, round to ellipsoid,

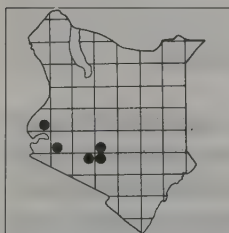


25-76mm long.

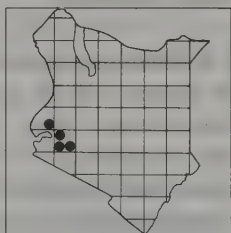
K(1)345; 1200-1750m; I-III, VII-VIII, X *

Forest; in dry forest usually near rivers.

Mukombokombo (KIK), Chemakwang'iet (KIP), Mukomere (MER), Mumandala (LUH).



Rothmannia urcelliformis



Rutidea orientalis

46. RUTIDEA

Flowers 4-5-merous, in terminal panicles. Fruit a drupe.

1. Stipules divided into 5-9 narrow lobes

2. *R. orientalis*

- * Stipules entire

2

2. Flowers 4-merous

1. *R. fuscescens*

- * Flowers 5-merous

3. *R. smithii*

1. *Rutidea fuscescens* Hiern

Shrub or liana, 1-9m. Leaves ovate or elliptic, base

obtuse or rounded, apex acute or acuminate, 2-11 by 1.5-7cm, glabrous or sparsely pubescent. Flowers white or cream, in compact panicles to 5cm across; corolla tube 5-9mm, lobes 1.7-3mm long. Fruit yellow to red, round, 4.5-6mm.

- ssp. *bracteata* Bridson: K5; collected once at Yala town; -*; forest or thicket.

- ssp. *fuscescens*: K7, Shimba Hills (Luke & Robertson 895).

2. *Rutidea orientalis* Bridson

(*R. syringoides* sensu KTS)

Shrub or climber to 6m. Leaves elliptic, base (often asymmetrically) obtuse to rounded, apex acuminate, 4-15 by 2-7cm, (sparsely) stiff-hairy. Flowers white, in dense panicles, corolla tube 4-9mm, lobes 2.2-3.5mm long. Fruit yellow to red, round, 5-9mm.

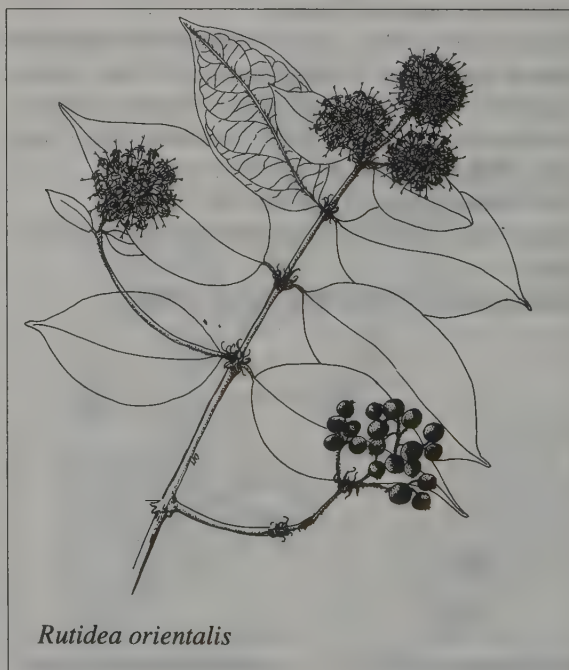
K35; 1550-2250m; II, IV *

Moist forest.

Rogoret (KIP), Itikwa (LUH). Luhya use the twigs as drinking straws.

3. *Rutidea smithii* Hiern ssp. *smithii*

Climber to 7m. Leaves elliptic to somewhat obovate, base cuneate to subcordate, apex acuminate, 3-15 by 1.5-9cm, somewhat sandpapery. Flowers white, in



dense or lax panicles; corolla tube 3.5-4mm, lobes 2-2.5mm long. Fruit yellow to orange, round, 5-7mm. K5; Kakamega forest margins (2 known); II-III * Manguelo (LUH).

47. RYTIGYNIA

Leaves opposite or (especially in *R. microphylla*) occasionally ternate; stipules hairy within. Flowers mostly 5-merous, axillary, solitary or in 2-10-flowered cymes.

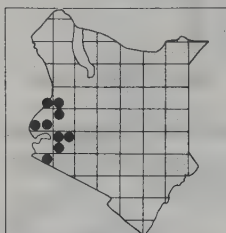
1. Plants with spines 2
- * Plants unarmed 5
2. Leaves evenly hairy beneath 3
- * Leaves glabrous or hairy only on veins or domatia 4
3. Corolla tube 3-6mm long; altitude 1450-1650m 2. *R. bugoyensis*
- * Corolla tube 1.5-2mm long; altitude below 1000m 3. *R. celastroides*
4. Leafbase rounded; corolla tube 4.5mm long, lobes 5mm long 7. *R. mrimaensis*
- * Leafbase cuneate; corolla tube 1.8-2mm long, lobes 2-3mm long (flowers unknown for *R. sp. "43"*) 9. *R. parvifolia* and 11. *sp. "43"*
5. Leaves evenly hairy beneath 6
- * Leaves glabrous except sometimes the veins or domatia 9
6. Coastal species, or inland below 1000m; corolla tube 1.5-2mm long 6. *R. microphylla*
- * Species found above 1350m, in forest or thicket 7
7. Corolla tube 1.5-2mm, lobes 2mm long; fruit 7-11mm long 8. *R. neglecta*
- * Corolla tube 3-6mm, lobes 1.5-5mm long; fruit 12-20mm long 8
8. Leaves densely pubescent 6. *R. induta*
- * Leaves sparsely hairy 2. *R. bugoyensis*
9. Coastal species, found below 200m; leaves small, 1-4 by 0.6-2cm 9. *R. parvifolia*
- * Inland species, found above 1000m; leaves usually larger, 2-15 by 1-7cm 10
10. Inflorescences with 1-2 flowers 11
- * Inflorescences usually with more flowers 12
11. Corolla tube 4.5-5mm, lobes about 2mm long 10. *R. uhligii*
- * Corolla tube about 3mm, lobes 2.5-3.5mm long 4. *R. eickii*
12. Narrow part of stipule 3.5-7mm long; inflores-

cence peduncle 2-4mm long; ovary 3-4-locular

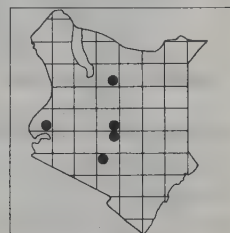
1. *R. acuminatissima*

- * Narrow part of stipule 2-3mm long; inflorescence peduncle up to 2 mm long; ovary 2-locular

8. *R. neglecta*



Rytigynia acuminatissima



Rytigynia bugoyensis

1. *Rytigynia acuminatissima* (K.Schum.) Robyns (*R. neglecta* of KTS, p.p.)

Shrub 2-3.5m (tree to 9 m). Leaves elliptic, base cuneate, apex acuminate, 3-15 by 1-6cm, glabrous except for the domatia. Flowers (greenish) white, in few-flowered short cymes; corolla tube 2-3mm, lobes 2-3mm long. Fruit round, 7-13mm long.

K35; 1200-2200m; V, IX *

Drier (*Olea*) forest margins and -remnants. Apindi (Luo).

2. *Rytigynia bugoyensis* (K.Krause) Verdc. ssp. *bugoyensis*

[*R. butaguensis* (De Wild.) Robyns]

Shrub 2-4m; with supra-axillary pairs of spines to 25mm. Leaves ovate or elliptic, base cuneate (rounded), apex acuminate, 3-10 by 1.5-7cm, sparsely hairy. Flowers (greenish) white or cream, in few-flowered short cymes; corolla tube 3-6mm, lobes 1.5-3.5mm long. Fruit black, 2-lobed, 12-17 by 11-14mm.

K145; 1450-1650m; III, VI *

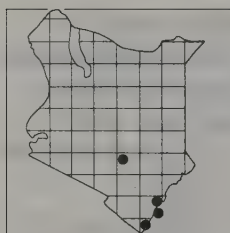
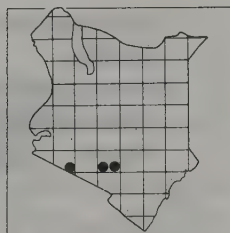
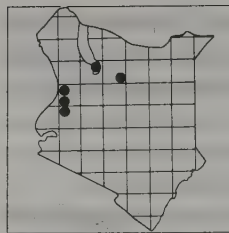
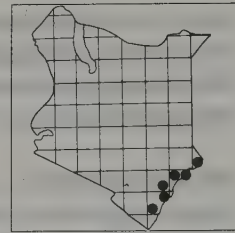
Forest.

Kailunjohi (MER).

3. *Rytigynia celastroides* (Baill.) Verdc.

[*R. microphylla* (K.Schum.) Robyns, *R. amaniensis* (K.Krause) Bullock, *R. oligacantha*. (K. Schum.) Robyns]

Shrub 1-5m; branches often in whorls or 3, frequently with single spines 7-13mm long. Leaves sometimes in threes; elliptic or slightly ovate, base cuneate, apex obtuse or shortly and bluntly acuminate, 1.2-6 by 0.5-2.5cm, scabridulous or pubescent. Flowers white to

*Rytigynia celastroides**Rytigynia induta**Rytigynia neglecta**Rytigynia parvifolia*

yellow-green, in few-flowered cymes; corolla tube 1.5-2mm, lobes 2.5-3.5mm long. Fruit black, round, 6-8mm.

K47; 1-450 (900)m; II-IX

On the coast in forest margins, thicket margins, and (usually secondary) bushland; in 1877 also collected near Kitui (Hildebrandt 2836).

Mtengeji, Mfiyofiyo (SWA), Mavi-ya-papa (GIR).

4. *Rytigynia eickii* (K.Schum. & K.Krause) Bullock Shrub 1-3m (or small tree). Leaves elliptic, base cuneate (rounded), apex bluntly acuminate, 4-14 by 2-7cm, glabrous but for the domatia. Flowers greenish-cream, in 2-flowered cymes; corolla tube about 3mm, lobes 2.5-3.5mm long. Fruit black, 1-lobed and asymmetric or 2-lobed, 10-11 by 7-15mm.

K7; 1550-1750m; -*

Forest margins, rocky bushland; Taita Hills.

5. *Rytigynia induta* (Bullock) Verdc. & Bridson

VULNERABLE

Shrub or tree 3-6m. Leaves elliptic, base rounded or cuneate, apex rounded to bluntly acuminate, 2.5-7.5 by 1.2-5cm, densely pubescent. Flowers greenish or cream, in few-flowered cymes; corolla tube 6mm, lobes 3-5mm long. Fruit black, almost round to 2-(3-) lobed, about 20mm across.

K46; 1800-2250m; -*

Forest or thickets.

7. *Rytigynia mrimaensis* Verdc. **VULNERABLE**

Shrub about 1m, with supra-axillary spines to 20mm. Leaves ovate, base rounded, apex bluntly acuminate, 2.5-5.5 by 1.3-3cm, glabrous or nearly so. Flowers greenish white, solitary; corolla tube 4.5mm, lobes 5mm long. Fruit unknown.

K7; 1-200m; XI *

Forest, endemic to an area between Mrima Hill, Watamu and Gedi forest.

8. *Rytigynia neglecta* (Hiern) Robyns

Shrub or tree 2-9m. Leaves elliptic, base cuneate to rounded, apex acuminate, 2-14 by 1.5-7cm, glabrous (except domatia) to sparsely pubescent. Flowers greenish white or pale yellow, in few-flowered cymes or fascicles; corolla tube 1.5-2mm, lobes 2mm long. Fruit black, (1)2-lobed, 7-11 by 7-10mm.

K123; 1350-2200m; V, VII, X-XI *

Drier types of forest, and riverine forest.

Anyuka, Apindi (LUO), Lekipiria (SAM).

9. *Rytigynia parvifolia* Verdc.

RARE

Shrub 1.5-6m; branches in whorls of 3, often with supra-axillary spines 4-8mm long. Leaves spaced on young shoots, on tiny spurs on older wood, elliptic, base cuneate, apex rounded, 1-4 by 0.6-2cm, glabrous or pubescent on venation beneath. Flowers greenish white or yellowish, in 2-3-flowered cymes; corolla tube 1.8-2mm, lobes 2-3mm long. Fruit ellipsoid, 7-7.5 by 6-11mm.

K7; 1-200m; V, VII, XI-XII *

Dense bushland or *Brachystegia* woodland.

Kadongara (GIR).

10. *Rytigynia uhligii* (K.Schum. & K.Krause) Verdc.

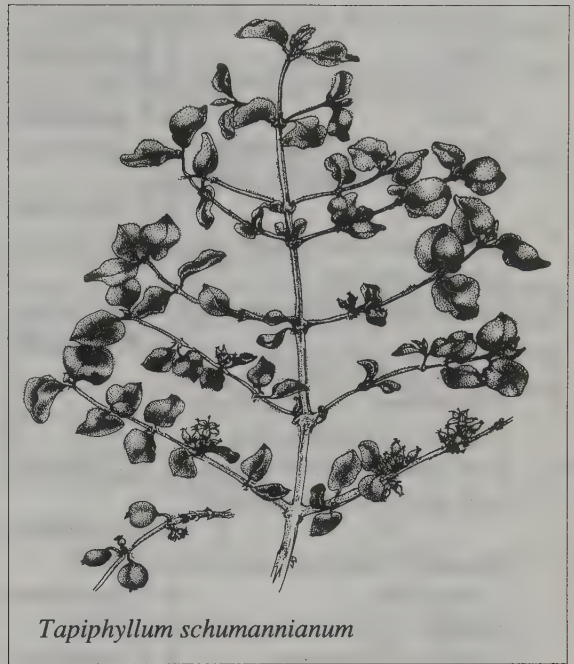
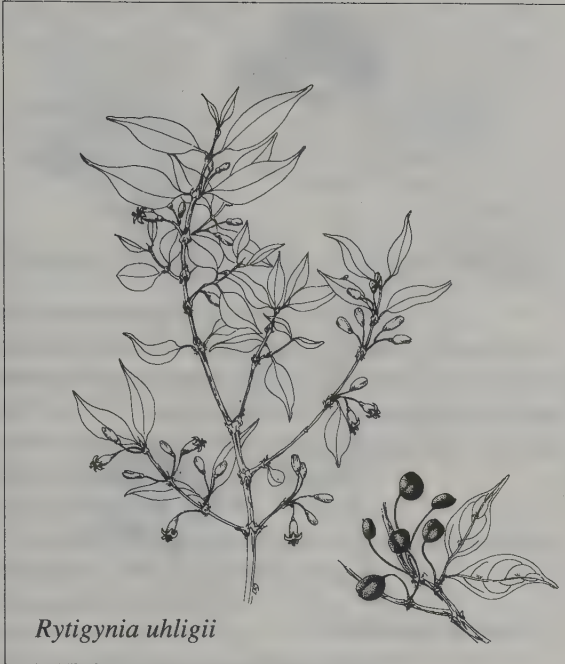
(*R. schumannii* Robyns, *R. euclioides* Robyns)

Shrub or tree 1-9 (13)m; bark smooth. Leaves elliptic or ovate, base cuneate to rounded, apex acuminate, 2-11 by 1-6cm, glabrous except for the obvious domatia. Flowers greenish-white or -yellow, in 1-2-flowered cymes; corolla tube 4.5-5.5mm, lobes about 2mm long. Fruit blue-black, round, 9-10mm.

K1467; 1050-2400m; I-III, V-VI, VIII, X, XII (I)

Dry or rather moist forest (remnants); often in forest on isolated hilltops.

Mukomoa (KAM), Mbirubiru (KIK), Kimolwet (KIP), Engum (MAA), Netuala (NDO), Msasa (TAI). Fruit edible; wood used in housebuilding.

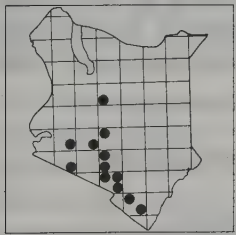


11. *R. sp.* (nr. 43 of FTEA)

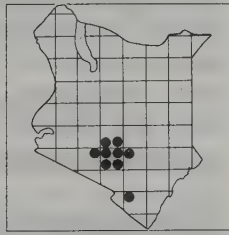
Shrub; branches in whorls of 3, with one or more reduced to spines to 9mm. Leaves opposite or in threes, elliptic, base cuneate, apex obtuse, 2.5-5 by 1-3cm, glabrous but for domatia. Flowers unknown. Fruit obliquely ellipsoid, 7 x 5mm.

K7; only known from Ozi and Tana R. Pr. Res. (Homewood 62, 64; Luke & Robertson 1360).

Riverine forest.



Rytigynia uhligii



Tapiphyllum schumannianum

48. TAPIPHYLLUM

Corolla lobes 4-6.

Tapiphyllum schumannianum Robyns

Shrub 1.5-4m. Leaves elliptic or almost round, base round to subcordate, apex obtuse, 0.9-4.5 by 0.8-4cm,

densely pubescent. Flowers white to yellow, in axillary fascicles of 1-4; corolla tube 3-4mm, lobes 3.5-5mm long, long-acuminate. Fruit green, round, 8-14mm.

- ssp. *schumannianum*: leaves 12-17 x 12-18mm. Ngong Hills area, in rocky evergreen bushland.

- ssp. *mucronulatum* (Robyns) Verdcourt; leaves 15-45 by 10-40mm.

(both) K46; 900-1900m; I, III-VI, IX-XII (I, XII) Rocky evergreen bushland, or wooded grassland (*Combretum*).

Mukomole (KAM), Mtorgortogor (EMB).

49. TARENNA

Flowers (4-)5-merous, in corymbose terminal (rarely axillary) many-flowered inflorescences. Fruit a round berry, crowned by the persistent calyx.

1. Leaves on short spurs; dry bushland, North-eastern province 2
- * Leaves spaced 3
2. Flowers/fruits in few-flowered cymes; corolla lobes about 6mm 3. *T. kibuwae*
- * Flowers/fruits in dense, many-flowered cymes; corolla lobes 3.5-4mm 9. *T. wajirensis*
3. Inland species 4
- * Coastal species found below 500m 5

- 4. Leaves beneath without domatia; fruit with 1 seed **2. *T. graveolens***
- * Leaves beneath with domatia; fruit with 2-15 seeds **6. *T. pavettoides***
- 5. Corolla densely hairy outside, with spreading lobes; leaves usually pubescent **8. *T. trichantha***
- * Corolla glabrous outside, with reflexed lobes; leaves glabrous **6**
- 6. Leaves thin, membranous; moist forest species **1. *T. drummondii***
- * Leaves thicker, leathery **7**
- 7. Corolla lobes 1.7-3.5mm long **8**
- * Corolla lobes 4-6mm long **9**
- 8. Leaf apex rounded or obtuse **4. *T. littoralis***
- * Leaf apex acute or acuminate **7. *T. supra-axillaris***
- 9. Stipules 3-7mm long, glabrous; petiole 8-30mm long **2. *T. graveolens***
- * Stipules 1.5-2.5mm long, bearded inside; petiole 5-10mm long **5. *T. nigrescens***

1. *Tarennia drummondii* Bridson

Shrub to tree 4-9m. Leaves elliptic or slightly obovate, base cuneate (sometimes unequal), apex acuminate, 8-19 by 2.5-9cm, glabrous. Flowers white or cream, in lax corymbs; corolla tube 4-6mm, lobes 6-7mm long. Fruit black, round, 5-7mm.

K7; 1-450m; III, VI, VIII, XI *

Moist forest (Shimba, Mrima, Marenje, Miongoni).

2. *Tarennia graveolens* (S.Moore) Brem.

(*T. boranensis* Cuf.)

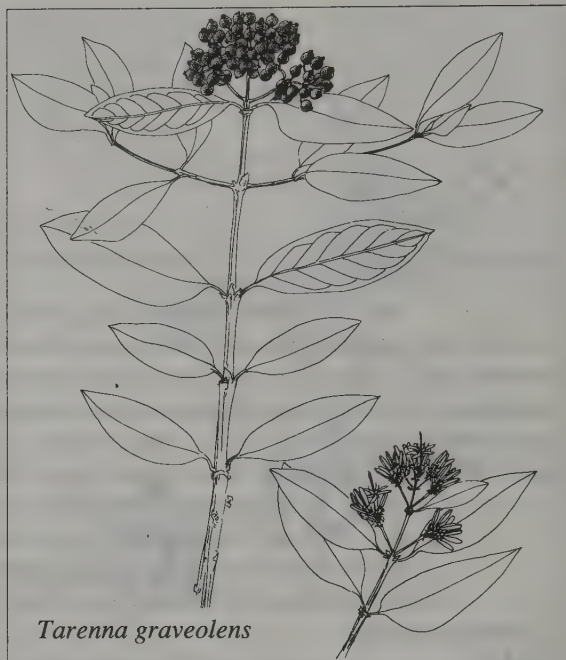
Shrub or tree 2-9m. Leaves narrowly elliptic, base cuneate, apex obtuse to acuminate, 3-13 by 1-6cm, glabrous or finely pubescent. Flowers white to yellow, in rather compact corymbs; corolla tube 3-6mm, lobes 4-5.5mm long. Fruit black, round, 4-7mm.

K 1234567; 1-2100m; I-XII (V-VI, XI-XII)

Bushland on rocky hills, drier forest (margins), thickets (often riverine), bushed grassland.

Mfuidzo, Mliwa (SWA), Korkere (BOR), Mukukuma, Muthethu (KAM), Chepkorwet, Kibelibeliet (KIP), Mboto (LUO), Olmasei/Oltuyesi (MAA), Munyoka (PKM), Patach (PKT), Lmasei, Imoisol, Laragash (SAM), Himir/Gelai (SOM), Mtongi (TAI), Emuturun, Ethigiriat (TUR).

A leaf infusion is used for eye drops by the Pokot.



Tarennia graveolens

Branches are used for arrow shafts, and the hard wood is employed in building.

- var. *graveolens*; leaves glabrous. Widely distributed.

- var. *impolita* Bridson; 400-1350m. Leaves finely pubescent.

3. *Tarennia kibuwae* Bridson

RARE

Shrub 2-3m. Leaves on (very) short spurs; elliptic, base cuneate, apex obtuse, 0.8-2.4 by 0.2-1.2cm, glabrous. Flowers greenish cream, in few-flowered cymes; corolla tube 3.5mm, lobes 6mm long. Fruit green, round, 8mm.

K 1/7; 200-350m; V *

Dry bushland; known from Garissa area only.

4. *Tarennia littoralis* (Hiern) Bridson

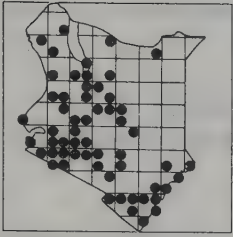
(*Enterospermum littorale* Hiern)

Shrub or tree 1-9m. Leaves (ob)ovate, base cuneate, apex rounded or obtuse, 3-10 by 1.5-6cm, glabrous. Flowers white, in dense corymbs; corolla tube 3-4mm, lobes 1.7-3mm long. Fruit black, round, 5-7mm.

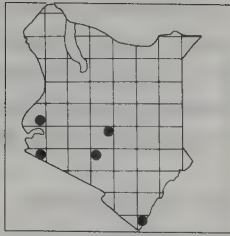
K7; collected once at Ngoa, near Vanga.

In sand near swamp.

Mfidzofidzo (SWA, DIG).



Tarennia graveolens



Tarennia pavettoides

5. *Tarennia nigrescens* (Hook.f.) Hiern

Shrub, climber or tree 3-7m, evergreen. Leaves (narrowly) elliptic, base cuneate, apex acute to acuminate, 4-9 by 1.5-3.5cm, glabrous. Flowers white or yellow, in lax corymbs; corolla tube 3-5mm, lobes 5-6mm long. Fruit green, round, 5-8mm.

K7; 1-300m; I, III-V *

Dry forest or (*Brachystegia*) woodland (Diani, Dzombo, Arabuko-Sokoke, Tana R.).

Mtongasi (GIR).

6. *Tarennia pavettoides* (Harv.) Sim.

ssp. *friesiorum* (K.Krause) Bridson

[*T. friesiorum* (K.Krause) Brem.]

Shrub or tree 3-6m. Leaves elliptic to slightly obovate, base cuneate, apex acuminate, 5-20 by 2-9cm, glabrous or nearly so. Flowers white, in lax or congested corymbs; corolla tube 3-6.5mm, lobes 3.5-6mm long. Fruit black, round, 4-8mm.

K45; 1200-1750m; I, IV, XI *

(Riverine) forest or secondary bushland near forest. Muremamuthua (KIK).

Note: a specimen from Shimba Hills, K7 (van Someren 245, anno 1939) might be this species.

7. *Tarennia supra-axillaris* (Hemsl.) Brem.

ssp. *supra-axillaris*

Shrub or tree, 2-6m. Leaves (narrowly) elliptic, base cuneate, apex acute to acuminate, 3-11 by 1-3.5cm, glabrous. Flowers white, in axillary or terminal cymes; corolla tube 2.5-5mm, lobes 2.3-5mm long. Fruit black, round, 4-5mm.

K7; 1-400m; V, VIII *

Forest or *Brachystegia* woodland (Arabuko-Sokoke and Shimba Hills).

8. *Tarennia trichantha* (Bak.) Brem.

Shrub or tree 2-4.5m; bark pale grey. Leaves (broadly) ovate to elliptic, base cuneate to rounded, apex acute

or obtuse, 4-8 by 1.5-5cm, glabrous or pubescent. Flowers white, in dense corymbs; corolla tube 4-5mm, lobes about 2mm long. Fruit green, 4-5mm.

K7; 1-50m; - *

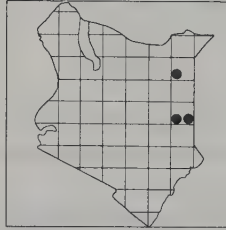
Dense bushland or thickets on sand (Kitwa Pembe, Kiunga and Boni)

9. *Tarennia wajirensis* Bridson

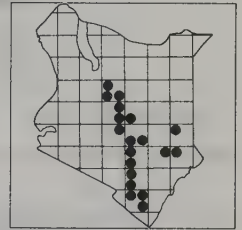
Shrub 1-2m. Leaves on short spurs, narrowly elliptic, base cuneate or obtuse, apex obtuse, 1.5-7 by 0.5-1cm, puberulous. Flowers white or cream, in dense cymes; corolla tube 4-5mm, lobes 3.5-4mm long. Fruit black, round, 4.5mm.

K1; 150-350m; V *

Dry bushland on sand.



Tarennia wajirensis



Tennantia sennii

50. TENNANTIA

Like *Catunaregam*, but unarmed. Corolla lobes 5-6.

Tennantia sennii (Chiov.) Verdc. & Bridson ined.

(*Xeromphis keniensis* Tennant) Figure on p. 548

Shrub 1-3m. Leaves on very short spurs, elliptic or narrowly obovate, base cuneate, apex rounded, glabrous or puberulous. Flowers white, pink or yellow, in 3-5-flowered sessile cymes; corolla tube 1.5-2mm, lobes 4-5mm long. Fruit yellow-green to black, round, 5-6mm, crowned by persistent calyx.

K147; 50-1050 (1710 ???)m; I, IV-VI, IX-XII (XI)

Dry bushland or -woodland.

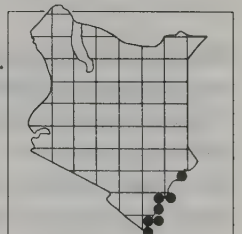
Hancha-dimes (ORM), Ltukumi (SAM), Orgab (SOM). The fruit is edible.

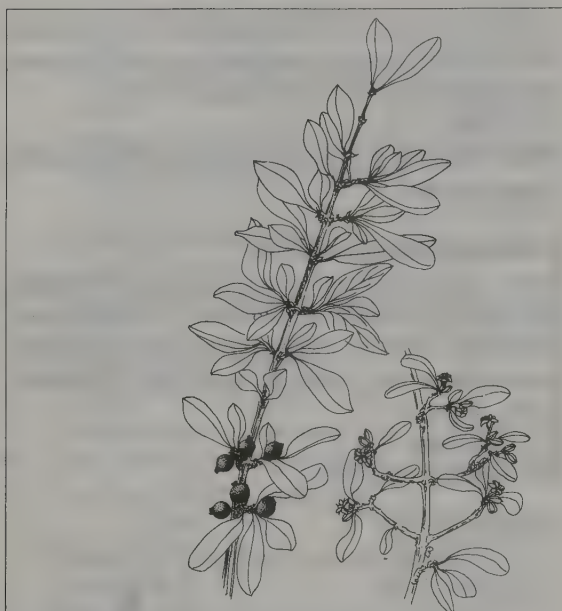
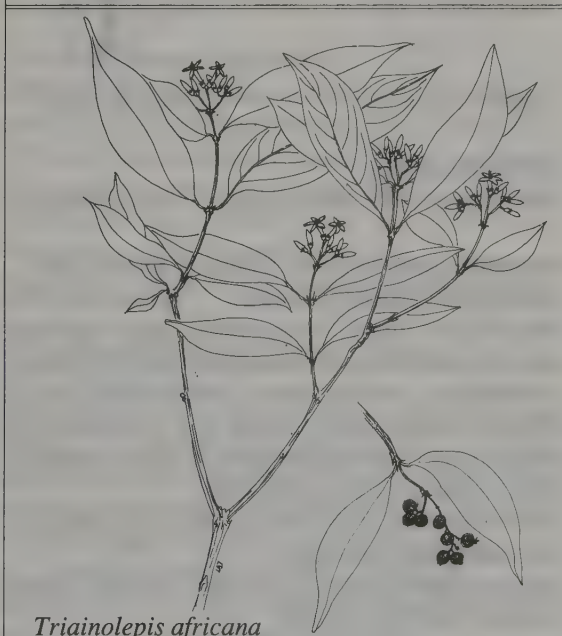
51. TRIAINOLEPIS

Stipules divided into 3-5 lobes.

Flowers (4-)5-merous, in terminal corymbs. Fruit a drupe.

Triainolepis africana



*Tennantia sennii**Triainolepis africana****Triainolepis africana* Hook.f.**ssp. *hildebrandtii* (Vatke) Verdc.(*T. hildebrandtii* Vatke)

Shrub or tree 1-6m. Leaves elliptic or somewhat ovate, base cuneate, apex acuminate, 3-12 by 1-6cm, glabrous except for veins beneath. Flowers white, in

lax corymbs; corolla tube 7-10mm, lobes 3.5-5.5mm long. Fruit red, round, 4-6mm.

K7; 1-50m; I, IV-VIII, XI.

Littoral, in thicket or bushed grassland.

Mlagakuku (SWA), Mlawisha (BAJ), Mungara (GIR).

52. TRICALYSIA

Small trees or shrubs. Leaves often with domatia; stipules sheathing, crowned by interpetiolar awns. Inflorescences opposite, axillary, mostly sessile, usually several-flowered, contracted; flowers (4-) 5-6 merous; bracteolar cup present at base of calyx-tube; stamens at the throat of the tube. Fruit a drupe with a persistent calyx.

1. Leaves with domatia; calyx lobes very narrow or small; fruit red 2
- * Leaves without domatia; calyx lobes triangular or ovate; fruit purple-black 5
2. Leaves entirely glabrous (except domatia) 3
- * Leaves hairy on midrib beneath 5. *T. pallens*
3. Flowers and fruits solitary 1. *T. bridsoniana*
- * Flowers and fruits 3 or more per inflorescence 4
4. Leaf apex obtuse; Western Kenya 3. *T. niamniamensis*
- * Leaf apex acuminate; central or coastal Kenya 3. *T. microphylla*
5. Flowers stalked, shaggy in throat; fruit stalk 4-16mm 4. *T. ovalifolia*
- * Flowers sessile, not shaggy; fruit stalk to 7mm long 6. *T. ruandensis*

1. *Tricalysia bridsoniana* Robynsvar. *bridsoniana*

RARE

Shrub 2-5m. Leaves elliptic or ovate, base cuneate, apex acute, 5-10 by 1.5-3cm, glabrous. Flowers white; corolla tube 13-27mm, lobes 6-10mm long. Fruit red, ovoid, 3.5mm long.

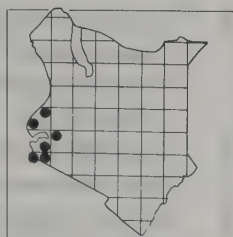
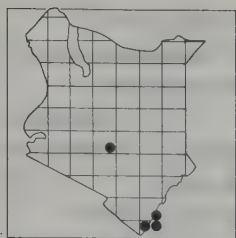
K7; 1-500m; XI *

Endemic to Arabuko-Sokoke (*Cynometra*) forest, Malungani and Mangea.

2. *Tricalysia microphylla* Hiern

Shrub 1-3m. Leaves elliptic or (ob)ovate, base cuneate or rounded, apex acuminate, 4-13 by 2-6.5cm, glabrous. Flowers white; corolla tube 8.5-10mm, lobes 8-10mm long. Fruit red, ellipsoid, about 10 by 7mm.

K(?)47; 100-450(850)m; IV *



Tricalysia microphylla *Tricalysia niamniamensis*

Forest. Endemic to Kenya and NE Tanzania.

The record from K4 (Robertson 2010) has only young fruits and needs confirmation.

3. *Tricalysia niamniamensis* Hiern var. *niamniamensis*

Shrub or tree 2-3(6)m. Leaves narrowly elliptic or (ob-)ovate, base cuneate, apex obtuse, 3-9 by 1-2.5cm, glabrous. Flowers white or cream; corolla tube 6-7.5mm, lobes 4-5mm long. Fruit orange, globose, 5-7mm across.

K35; 1250-1550m; *

Riverine, or evergreen bushland.

4. *Tricalysia ovalifolia* Hiern

Shrub or small tree 1-6m, evergreen. Leaves elliptic or (ob-)ovate, base cuneate, apex acute or obtuse (to shortly acuminate), 5-11 by 2.5-6cm. Flowers white; corolla tube 3-6.5mm, shaggy in the throat, lobes 3.5-8mm long. Fruit purplish to black, globose, to 7mm across.

K7; 1-1000m; I, IV-V, IX-XII.

Kifiyofiyo, Ukamba-mwitu (SWA), Mboroko (GIR), Mkuba-adasti (SAN).

Key to varieties:

- | | |
|---|------------------------|
| 1. Leaves glabrous or nearly so | 2 |
| * Leaves densely hairy beneath | var. <i>taylorii</i> |
| 2. Petiole hairy on all sides; midrib hairy near base | var. <i>glabrata</i> |
| * Petiole hairy on upper side only; midrib glabrous | var. <i>ovalifolia</i> |

- var. *ovalifolia*: K7; 1-400m; IV-V, IX, XII *

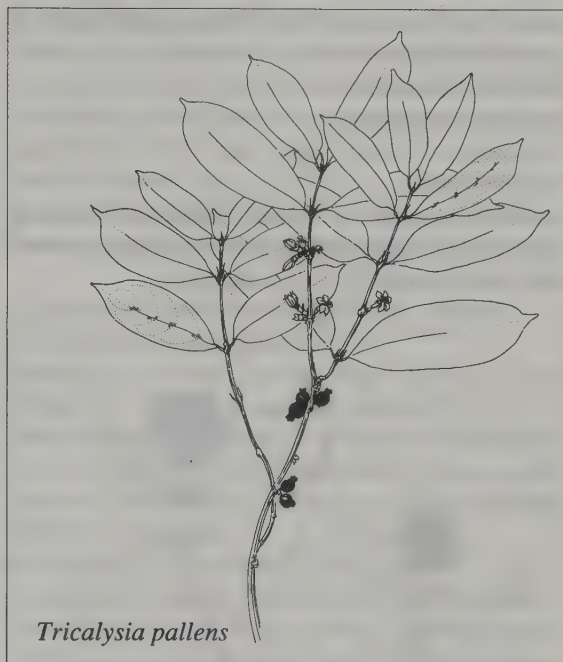
Evergreen coastal bushland, thickets, or dry forest.

- var. *glabrata* (Oliv.) Brenan: K7; 1-1000m; I, V, X-XI *

Coastal forest; bushland and thickets inland.

- var. *taylorii* (S. Moore) Brenan: K7; 1-400m; IX *

? bushland in Arabuko and Mangea.



Tricalysia pallens

NOTE: A single record from K4 (Ossent 687) is this species, but the locality is unknown.

5. *Tricalysia pallens* Hiern

(*T. myrtifolia* S. Moore)

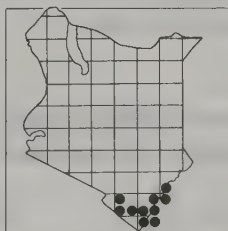
Shrub or tree 2-10m. Leaves elliptic or obovate, base cuneate, apex acute or acuminate, 6-12 by 1.5-5cm, with puberulous or pubescent midrib and hairy domatia. Flowers white; corolla tube 2-8mm, lobes 3-6mm long. Fruit red, globose, 3-6mm across.

K 47; 1-1400m; I-III, VI, XI-XII

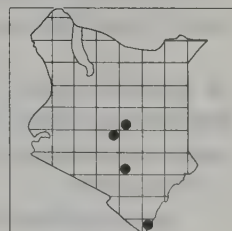
Moist evergreen forest (margin) or riverine forest.

6. *Tricalysia ruandensis* Bremek.

Shrub or small tree 1-8m. Leaves elliptic or obovate, base cuneate, apex acute or acuminate, 5-8.5 by 2-3.5cm, glabrous. Flowers white; corolla tube 2-5mm,



Tricalysia ovalifolia



Tricalysia pallens

lobes 2.7-4.5mm long. Fruit white, purple to black, globose, 6-10mm across.
K 7; 400-500m; VII*
Dzombo and Mangea.

53. UNCARIA

Climbing by way of hooked spines on flowering branches. Inflorescences globose, axillary or terminal. Corolla lobes 5. Fruit a capsule.



Uncaria africana

Uncaria africana G.Don

Liana to 9m. Curved spines in pairs at the nodes, recurved through 240°. Leaves elliptic, 5-12 by 2.5-6cm, glabrous or nearly so. Flowers white or yellow, in globose heads 4-6cm across. Fruit fusiform, 11-25mm long.

- ssp. *lacus-victoriae* Verdc.: K5; collected once in Kakamega Forest, in forest edge.

- ssp. *africana*: Tana River, Pangani, collected between 10 and 70m, probably not uncommon.

54. VANGUERIA

Stipules hairy inside. Inflorescence axillary, a divaricately branched cyme. Corolla bearded at throat; lobes 5. Fruit a berry.

1. Leaves glabrous or nearly so

* Leaves densely hairy

2. Calyx lobes less than 2mm long; fruit 25-50mm across

* Calyx lobes more than 3mm long; fruit 17-22mm across

3. Calyx lobes less than 2mm long

4. Leaves sandpappy; coastal species below 400m

* Leaves soft-hairy; inland species above 900m

5. *V. volkensii*

1. *Vangueria apiculata* K.Schum.

Shrub or tree 1.5-9m; bark smooth, grey-brown. Leaves ovate or elliptic, base cuneate or rounded, apex acuminate, 3-15 by 1.5-6cm, glabrous. Flowers (greenish) white or yellow, in lax or dense cymes; corolla tube 4-5mm, lobes 4-5mm long. Fruit green, round or ellipsoid, 17-22mm long.

K12356; 950-2330m; I-II, IV-VI, IX-XII

Evergreen bushland or thicket (often in rocky sites), forest margins, riverine forest, wooded grassland.

Kikomoa, Mukomoa (KAM), Kimolwet (KIP), Shikholmoli, Kumukomosi (LUH), Ol-gumi (MAA), Tapirpirwa (PKT), Emaler (TUR). The fruit is edible.

2. *Vangueria infausta* Burch.

ssp. *rotundata* (Robyns) Verdc.

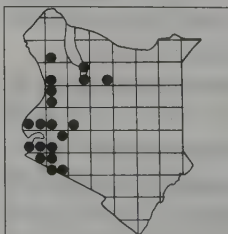
[*V. rotundata* Robyns, *V. campanulata* Robyns, *V. tomentosa* sensu KTS]

Shrub or tree 2-8m. Leaves elliptic or ovate, base cuneate or rounded, apex acute or shortly acuminate, 4-30 by 2.5-18cm, densely pubescent or velvety. Flowers white or yellow-green, in lax cymes; corolla tube 3-4.5mm; lobes 3-4mm long. Fruit orange-brown, subglobose, 15-47mm.

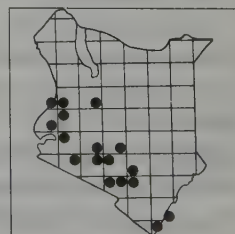
K1234567; 1-2100m; II, IV-V, VII-XII

Riverine forest or -woodland, rocky bushland or thickets.

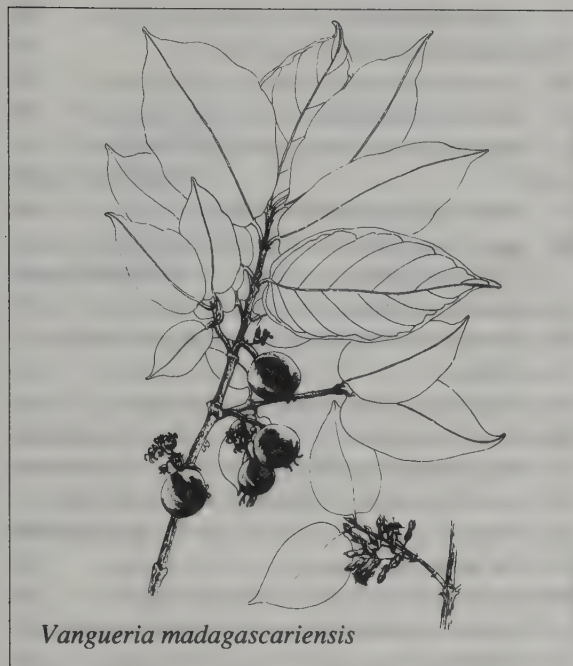
Mviru, Muiro (SWA, DIG), Kikomoa, mukomoa



Vangueria apiculata



Vangueria infausta



(KAM), Kimolwet (KIP), Omuya (LUO), Ol-gumi (MAA), Kimolwet (NAN), Bombo (SAN). Fruit edible.

- var. *rotundata*: corolla hairy outside.

- var. *campanulata* (Robyns) Verdc.: corolla glabrous or nearly so.

3. *Vangueria madagascariensis* Gmel.

(*V. acutiloba* Robyns)

Shrub or tree 3-10m; bark brown, scaly. Leaves elliptic or ovate, base cuneate or rounded, apex acute or shortly acuminate, 8-28 by 3-15cm, glabrous or nearly so. Flowers cream or yellowish green, in fairly dense cymes; corolla tube 3-4.5mm, lobes 3.5-4.5mm long. Fruit yellow-brown, depressed globose, 35-50mm.

K1234567; 750-2100m; I, III-IV, VI, VIII-XII

Riverine forest or -bushland, rocky bushland, ground-water forest.

Bururi (BOR), Kikomoa, Mukomoa (KAM), Mubiru (KIK, MER), Kimolwet (KIP), Anyuka, Apindi (LUO), Olgumei (MAA), Komolwo (PKT), Ngoromusui (SAM), Kamolwet (SEB), Mdaria (TAV), Komolik (TUG). The fruit is edible, and is used for flavouring beer.

4. *Vangueria randii* S. Moore ssp. *acuminata* Verdc. Shrub 1-3m. Leaves elliptic, base cuneate, apex acuminate, 6-13 by 2-5.5cm, sandpapery-pubescent. Flowers white or yellow-green, in lax cymes; corolla tube 2-4mm, lobes 2.5-3.5mm long. Fruit yellow, subglobose, 15-20mm.

K7; 1-500m; III-IV *

Forest (Shimba, Muhaka, Chonyi, Diani, Mangea).

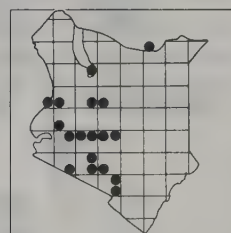
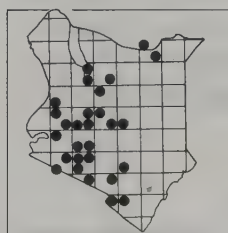
5. *Vangueria volkensii* K.Schum. var. *volkensii*

(*V. linearisepala* K.Schum.)

Shrub or tree 4-9m. Leaves ovate or elliptic, base cuneate to subcordate, apex acuminate, 3-17 by 1.5-10cm, densely pubescent or velvety. Flowers greenish cream or yellow-green, in fairly dense cymes; corolla tube 3.5-5.5mm, lobes 4-4.5mm long. Fruit brownish, subglobose, 20-25mm.

K123456(??); 900-2300m; I-VIII (IV).

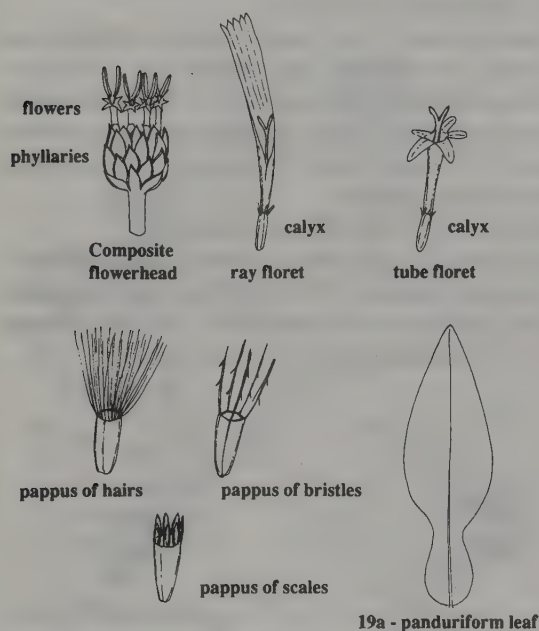
Dry forest margins, riverine forest, rocky bushland. Kikomoa, Mukomoa (KAM), Mubiru, Mubiru-ngombe (KIK), Kimolwet, Kimbuet (KIP), Anyuka, Omugu (LUO), Maldai (NDO). The fruit is edible.



Vangueria madagascariensis *Vangueria volkensii*

238. COMPOSITAE

Herbs or shrubs, rarely trees. Leaves exstipulate, alternate or opposite. Flowers sessile in dense heads, surrounded by a series of bracts called phyllaries; flowers monoecious, polygamous or dioecious; sepals reduced to scales or bristles (pappus); corolla either regular (tube florets) or with a spreading ligule to one side (ray florets); fruit a dry achene, with hairs or bristles, small.



For succulent shrubs see 10. *KLEINIA*, page. 648

1. Leaves linear and less than 2mm wide 2
- * Leaves more than 2mm wide or not linear 3
2. Leaves 2-4.5 by 0.5mm, densely pubescent 17. *Stoebe*
- * Leaves 10-27 by 1-1.5mm, glabrous 8. *Euryops*
3. Leaves bipinnate or (bi)pinnatisect or lobed 4
- * Leaves entire, not lobed 7
4. Leaves 3(-5)lobed 19. *Tithonia*
- * Leaves pinnatisect or pinnate 5
5. Leaves subsucculent; climber 16. *Solanecio angulatus*
- * Leaves herbaceous; shrubs 6
6. Leaves greyish, bipinnate 2. *Artemisia*
- * Leaves green, once or twice pinnatisect 3. *Bidens*

7. Leaves opposite 28
- * Leaves alternate or fascicled 8
8. Leaves auriculate at base 9
- * Leaves not auriculate 10
9. Leaves very narrow, less than 7mm wide 9. *Helichrysum*
- * Leaves more than 1cm wide 29
10. Involucre/phyllaries shiny, silvery white; high altitude shrubs 9. *Helichrysum*
- * Involucre neither shiny nor silvery 11
11. Flower heads with ray florets as well as tube florets 12
- * Flower heads with tube florets only 13
12. Ray florets small: 2-3mm 11. *Microglossa*
- * Ray florets more than 12mm long 15. *Senecio*
13. Leaf continuing as dentate wings down the stem 13. *Pluchea*
- * No wings along stem 14
14. Leaves subcordate or truncate at base 15
- * Leaves cuneate, attenuate, or rarely rounded at base 18
15. Pappus of scales (4-7) 4. *Blepharispermum*
- * Pappus of hairs (many) 16
16. Petiole 6-18cm long; leaf apex rounded or obtuse 15. *Senecio*
- * Petiole less than 6cm long; leaf apex acute or acuminate 17
17. Leaves about as long as wide; petiole mostly over 25mm long; florets cream or yellow 12. *Mikaniopsis*
- * Leaves more than twice as long as wide; petiole less than 30mm long; florets purple, mauve, or white 20. *Vernonia*
18. Pappus of scales 4. *Blepharispermum*
- * Pappus of hairs or bristles 19
19. Leaves 30-60cm long, panduriform 15. *Senecio*
- * Leaves smaller or elliptic 20
20. Leaves beneath very densely tomentose, giving a greyish or yellowish colour 21
- * Leaves beneath glabrous or pubescent, but green 23
21. Leaf margins entire (except in young plants); leaves (narrowly) elliptic 22
- * Leaf margin serrate or dentate, or if entire, plant with ovate leaves 20. *Vernonia*
22. Tree to 20 (36)m; leaves without smell; dry forest 5. *Brachylaena*
- * Shrub or small tree to 7.5m; crushed leaves

with smell of camphor; bushland

23. Flowers yellow 24
 * Flowers white, mauve, or purple 26
 24. Leafbase sessile on stem; plants from above 3000m 6. *Conyza*
 * Leafbase cuneate or attenuate; plants from below 2700m 25
 25. Leaves sticky, entire or crenulate at margin; shrubs to 2.5m 14. *Psiadia*
 * Leaves not sticky, deeply serrate at margin; shrub or tree to 10m 16. *Solanecio*
 26. Plants from above 3000m; dead leaves staying on plant 6. *Conyza*
 * Plants from below 2850m; dead leaves falling 27
 27. Corolla of tube florets exceeding involucre and pappus by at least a quarter; pappus in 2 rows 20. *Vernonia*
 * Corolla of tube florets equalling or shorter than either involucre or pappus; pappus in 1 row 13. *Pluchea*
 28. Flowers cream or pale yellow 1. *Ageratina*
 * Flowers purple or violet 7. *Bothriocline*
 29. Phyllaries in many rows 20. *Vernonia*
 * Phyllaries in 2 rows 15. *Senecio maranguensis*

1. AGERATINA

Heads in terminal corymbs, with tube florets only. Pappus of bristles.

Ageratina adenophora (Spreng.) R.M. King & H. Robins.

(*Eupatorium adenophorum* Spreng.)

Shrub 1-2m, stems dark purple, young stems glandular-hairy. Leaves opposite, ovate, base cuneate, apex acute, margins dentate, 2-9 by 1.5-6cm. Flowers white or pale yellow; heads many, about 7mm long.

K3; 1950-2300m; I *

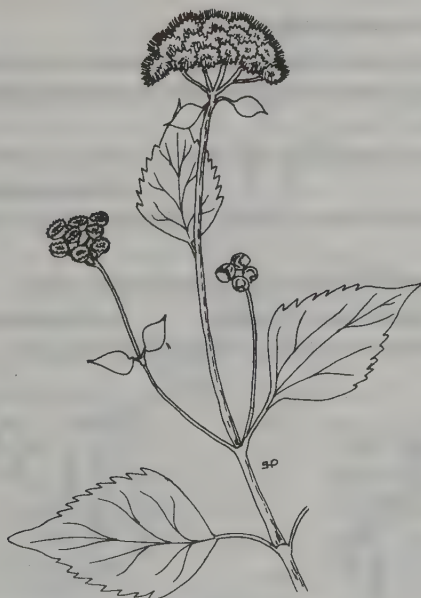
Swampy sites, riverine; only collected three times in the Kitale-Eldoret area.

2. ARTEMISIA

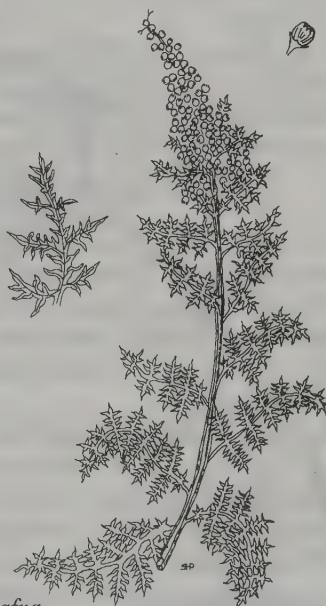
Leaves alternate, aromatic; heads in panicles with only tube florets; pappus absent.

Artemisia afra Willd.

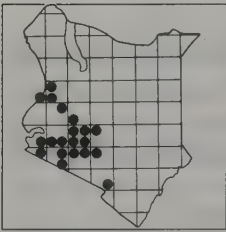
Woody herb or shrub 0.7-2.5m, with numerous stems. Young branches densely pubescent. Leaves pinnatisect, the segments deeply incised, 3-10 by 2-7cm, densely pubescent, grey-silver beneath. Flowers brown or yellow, in pendulous heads about 3-5mm across; inflorescences axillary or terminal with many heads.



Ageratina adenophora



Artemisia afra

*Artemisia afra*

K23456; 1550-3750m; I-XII

Colonizing burnt areas; locally common in heath zone; grassland, upland bushland (edges), forest edges. Occasionally forming pure stands.

Mutasia, Muhato (KIK), Sisimwet (KIP), Nyumba (LUO), Ol-tikambu (MAA), Sesimwa (MAR).

3. BIDENS

Herbs or shrubs; leaves opposite, divided; heads single or in inflorescences, terminal, with tube and ray florets. Pappus replaced by barbed bristles.

1. Heads corymbose; ray florets 16-20 by 5-7mm

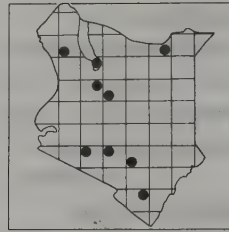
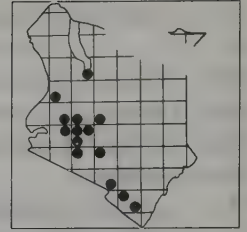
1. *B. hildebrandtii*

- * Heads solitary; ray florets 20-45 by 6-17mm

2. *B. kilimandscharica*

1. *Bidens hildebrandtii* O.Hoffm.

Woody herb or shrub 0.9-3m; several-stemmed (occa-

*Bidens hildebrandtii**Bidens kilimandscharica*

sionally thicket-forming); stems red. Leaves bipinnatisect, to 12 by 9cm. Flowers yellow, heads in corymbs. Pappus with retrorse barbs.

K12347; 450-1900m; IV-V, VIII, XI-II

On steep rocky slopes, especially in *Acacia-Commiphora* bushland.

Habuni (BOR), Mothee (KAM), Mariti haritiva (REN), Epwatedere (TUR).

2. *Bidens kilimandscharica* (O.Hoffm.) Sherff (incl. *B. napierae* Sherff, *B. taitensis* Sherff)

Woody herb or shrub 0.9-3m, stems reddish. Leaves aromatic, once or twice pinnatisect, rarely simple and deeply serrate, 3-18 by 2-16cm. Flowers yellow, in solitary heads. Pappus with erect barbs.

K123467; (1100) 1600-2700m; I-XII

Forest edges, (wooded) grassland, *Erica* bushland; especially on stony ground.

4. BLEPHARISPERMUM

Leaves alternate; inflorescence with many sessile heads in spherical 'heads or heads'; tube florets only; pappus of scales.

1. Leaves narrowly obovate, 1.3-6 by 0.2-1cm

1. *B. lanceolatum*

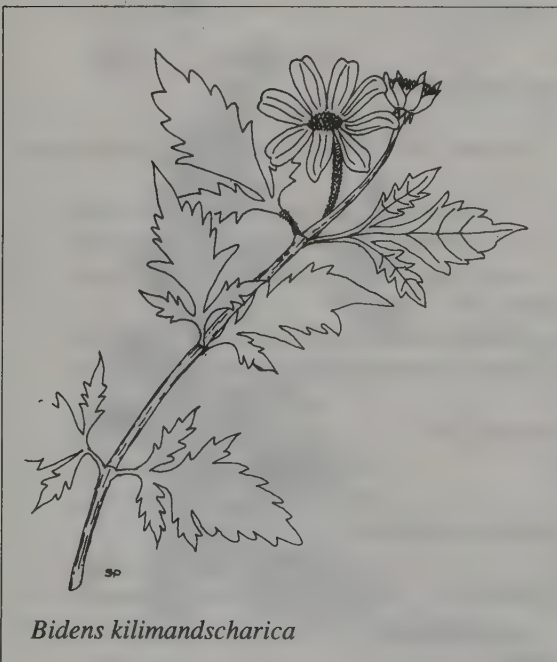
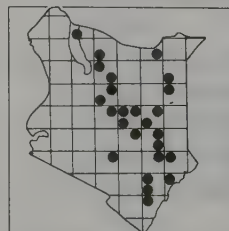
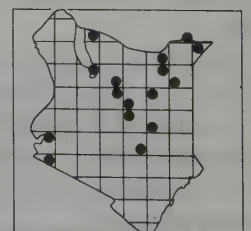
- * Leaves ovate or elliptic, more than 1.5cm wide

2

2. Florets 2.5mm long; inflorescence with a single 'head of heads'

2. *B. pubescens*

- * Florets 5mm long; inflorescence branched,

*Bidens kilimandscharica**Blepharispermum lanceolatum**B. pubescens*

with several 'heads of heads'

3. *B. zanguebaricum*

1. *Blepharispermum lanceolatum* Chiov.

(*B. fruticosum* Klatt)

Shrub 1-3m with thin stems and often fascicled leaves. Leaves narrowly obovate to spatulate, base attenuate, apex acute, obtuse or emarginate, margins ciliate, 1.3-6 by 0.2-1cm. Flowers cream or white in a long-pedunculate 'head of heads'.

K147; 1-1200m; I-II, IV-VII, X-XII

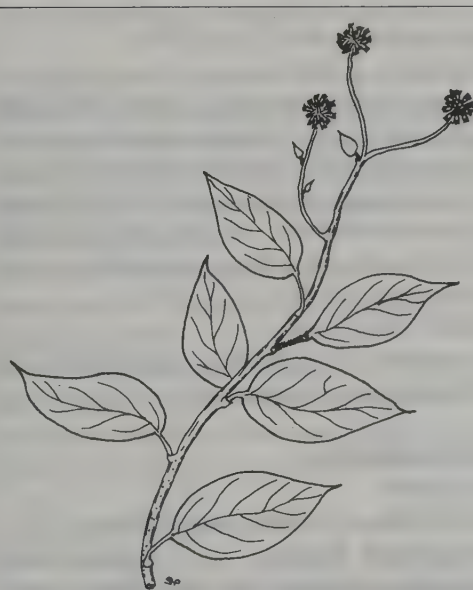
Acacia-Commiphora bushland, often on edges of seasonal streams.

Abune (BOR), Kate (ORM), Urmat (REN), Bania bafof, Bainyatusbah (SOM). Good camel fodder.

Note: material from Coast province has more spatulate leaves, which are more often emarginate at apex.

2. *Blepharispermum pubescens* S.Moore

(Scandent) shrub 1.5-3m. Leaves (broadly) ovate, base cuneate, truncate, or subcordate and often unequal, apex obtuse, acute or shortly acuminate, margin entire or sparsely dentate, 2.5-7 by 1.5-5.5cm, more or less puberulous. Flowers white or yellowish, in a single, long-pedunculate 'head of heads' 7-11mm across.



Blepharispermum zanguebaricum

K14; 250-900m; I-VII, X-XII

Acacia-Commiphora bushland, often on limestone.

Baia (REN), Bainy (SOM). The preferred camel forage in the Northeast.

3. *Blepharispermum zanguebaricum* Oliv. & Hiern

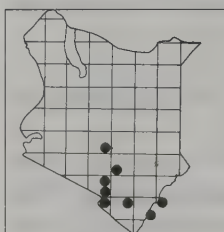
Shrub or scrambler with sarmentose branches. Leaves ovate or elliptic, base cuneate, rounded or truncate, often unequally, apex acute, margin entire or sparsely dentate, 4-13 by 2-7cm, sparsely pilose. Flowers white, in several 'heads of heads' each 8-15mm across, in branched inflorescences.

K467; 1-1800m; I, III-IX, XI

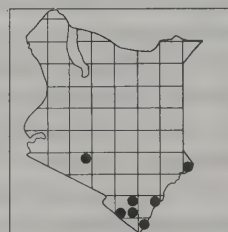
Dry bushland, often in rocky places.

Ulumandu (KAM).

Note: in the Western Masai Mara and near L. Victoria there is a clambering or trailing shrub of this genus with ovate leaves, a truncate leafbase, and coarsely toothed margins. The leaves are densely pubescent beneath. The flowers are in a single 'head of heads'. This is the sp. "A" of UKWF, but its height is unknown. It seems to occur on rocky hills, 1100-1700 m.



Blepharispermum zanguebaricum



Brachylaena huillensis

BOTHRIOCLINE see 7

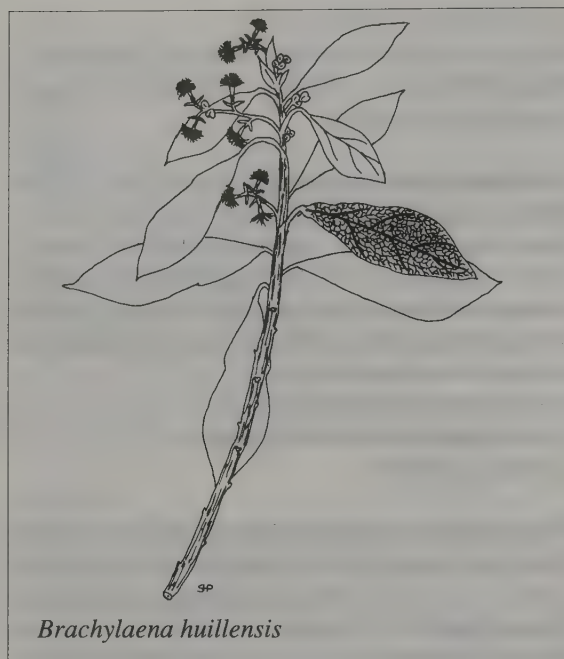
5. BRACHYLAENA

Dioecious. Leaves alternate. Heads small, cylindrical, in short axillary panicles; tube florets only; male heads shortly pedicillate, female heads sessile. Pappus of scabrid bristles.

***Brachylaena huillensis* O.Hoffm.**

(*B. hutchinsii* Hutch.)

Tree 10-18 (? 36)m, evergreen; bark rough, grey, peeling longitudinally. Leaves narrowly elliptic to slightly obovate, base cuneate or attenuate, apex acute or short-acuminate, margin entire or serrate in young plants, 3-12 by 1-4cm (larger in saplings), revolute,



densely greywhite-tomentose beneath. Flowers white or greenish yellow, in heads in 2-3cm long erect axillary panicles.

K47; 1-1800m; III-V, X-XII

Upland semi-deciduous forest, locally common, and lowland dry forest or thicket.

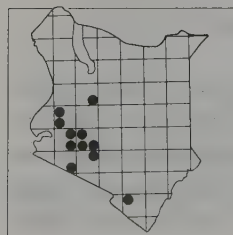
Muhuhu, Muhugu (STAND, SWA), Abozi, Avud (BON), Muvuvu (KAM), Muhugu, Mugugu (KIK), Mshenzi, Watho (SAN), Kipungupungu (TAI). Used for timber (strong and very durable), woodcarving and firewood. Wood smells of sandalwood.

6. CONYZA

Herbs or shrubs with alternate leaves; heads in terminal corymbs; tube florets only; pappus of minutely scabrid bristles.

1. Leaves petiolate; alt. <3000m 1. *C. hypoleuca*

* Leaves sessile; alt. ≥3000m 2. *C. vernonioides*



Conyza hypoleuca

1. *Conyza hypoleuca* A.Rich.

Shrub 1.5-4m, resembling *C. vernonioides*.

K3467; 1500-2300m; V, XII *

Rocky grassland or *Tarchonanthus* bushland.

Mugomo (TAI).

2. *Conyza vernonioides* (A.Rich.) Wild

(*Nidorella arborea* RE Fries)

Shrub or tree 4.5-9m; bark rough, stem clothed with persistent dead leaves. Leaves narrowly ovate or elliptic, base narrowing to the stem (no petiole), apex narrowly acuminate, margin serrate, 9-12.5 by 2-4cm, shortly pubescent beneath. Flowers yellow or white, in many-flowered heads 5-7mm across; inflorescence about 10cm long.

K34; 3000-3750; III, XII

Rocky moorland or at bamboo edges: Elgon, Mt. Kenya, Nyandarua. Uncommon.

7. BOTHRIOCLINE

Leaves opposite.

Bothriocline fusca (S.Moore) M.G. Gilbert

(*Erlangea fusca* S. Moore)

no map or plate

Shrub, usually less than 1.5m, with elliptic, serrate leaves which are white-hairy beneath; flowers purple or violet, in terminal corymbs.

*Euryops brownei**Helichrysum nandense*

K23456; 2400-3000m; in roadsides and disturbed places at high altitudes.

8. EURYOPS

Shrub with crowded linear leaves; heads solitary, with ray and tube florets. Pappus of short bristles.

Euryops brownei S.Moore

Shrub 0.3-3 (?5)m, bases of leaves remaining on stems and often some dead leaves hanging down. Leaves linear, apex acute, 1-2.7 by 0.1-0.2cm. Flowers bright yellow, rays 7-16 by 2-3.5mm; heads solitary on 17-65mm long peducles.

K234; (2550-) 2850-4200m; I-XII.

Heath zone of Cheranganis, Nyandarua, Mt Kenya, locally abundant.

Note: *Euryops elgonensis* Matt.f. is a smaller shrub with glabrous instead of pubescent peduncles. This species is confined to the lower heath zone of Mt. Elgon. Collected four times, December to February.

9. HELICHRYSUM

Leaves alternate, often glandular. Heads in corymbs or solitary; tube florets only; phyllaries scarious, often brightly coloured; pappus of scabrid bristles.

- | | |
|--|--------------------------|
| 1. Leaves 1-2cm wide | 3. <i>H. guilelmi</i> |
| * Leaves less than 0.7cm wide | 2 |
| 2. Leaves widest at base, clasping the stem | 3 |
| * Leaves widest at or above the middle, not clasping | 2. <i>H. chionoides</i> |
| 3. Leaves green beneath, puberulous | 4. <i>H. nandense</i> |
| * Leaves whitish-cobwebby beneath | 1. <i>H. argyranthum</i> |

1. *Helichrysum argyranthum* O.Hoffm.

Large shrub to 3m. Phyllaries about 10mm long, white.

K1; 2700m; *

Found once on Mt. Nyiru, in moorland.

2. *Helichrysum chionoides* Phillipsen

Shrub 0.7-2.4m; stem black; dead leaves hanging down. Leaves linear to narrowly obovate, apex acute, 1-3.3 by 0.2-0.5cm, yellow-tomentose beneath. Flowers pale yellow, phyllaries 10-15mm long, shiny white. Heads in dense corymbs.

K4; 2900-3850m; I-III, VI, VIII-IX, XI-XII.

Often subdominant on moorlands of Nyandarua and Mt Kenya, near streams or on rocky slopes.

3. *Helichrysum guilelmi* Engl.

Shrub to 2m. Leaves half-clasping the stem, narrowly triangular, apex acute, 5-10 by 1-2cm, cobwebby-hairy. Flowers with phyllaries 13-15mm long, silvery white or pink. Heads in corymbs to 12cm long.

K4; 3000m; I *

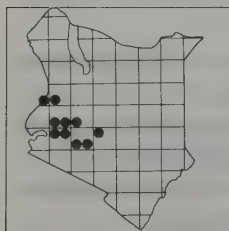
Found once (Winmill 36) on Mt. Kenya in upper bamboo zone; reported (UKWF) from Nyandarua/Aberdares.

4. *Helichrysum nandense* S.Moore

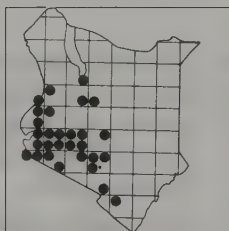
Woody herb or shrub 0.4-2.5m, twice reported as scandent. Dead leaves hanging down. Leaves narrowly triangular, half-clasping the stem, apex attenuate, (1) 2-6.5 by 0.2-0.7cm. Flowers with yellow florets and white or red phyllaries 4-8mm long; heads in (axillary and) terminal corymbs.

K3456; 2100-3900m; I-XII

Forest or bamboo edge, montane grasslands, moorlands and heathzone.



Helichrysum nandense



Microglossa pyrifolia

10. KLEINIA

see additions, page 649

11. MICROGLOSSA

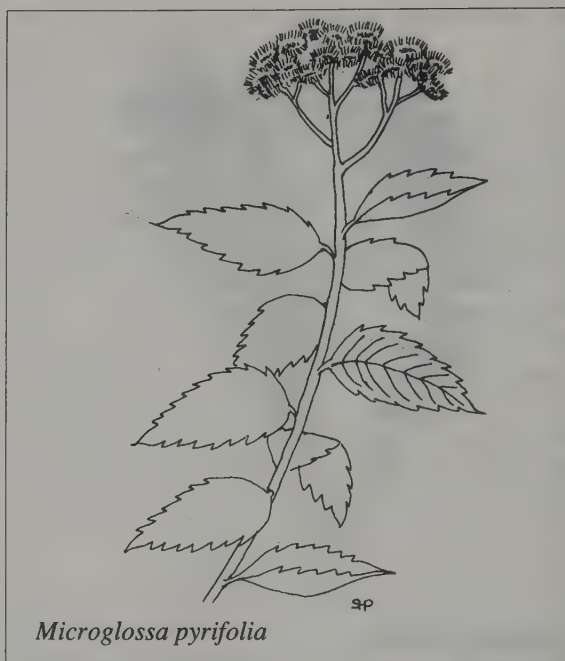
Herbs or shrubs much resembling *Conyza*, with alternate leaves and flowers with tube and (small) ray florets in terminal corymbs. Pappus of bristles.

***Microglossa pyrifolia* (Lam.) O. Kuntze**

Woody herb, shrub or scrambler 0.5-6 (12)m. Leaves ovate, base cuneate, occasionally slightly unequal, apex acute, margin dentate (rarely entire), 4-12 by 1.5-5cm, pubescent or puberulous. Flowers white, cream or yellow, rays 2-3mm long. Heads in corymbs, 4-13cm long.

K1234567; 1200-2900m; I-XII.

Forest edges, riverine forest, grass/bushland, waste land.



Microglossa pyrifolia

Mukutu, Uvatha mutheke (KAM), Mutei (KIK), Kuombereriet, Kwambereriet (KIP), Enguu (LUH), Engokumati, Ol-ogomati (MAA). Leaf powder applied on flesh wounds; roots used against cough; leaf decoction emetic, used against malaria.

12. MIKANIOPSIS

Climbers with alternate heart-shaped leaves and long petiole used as support; tube florets only, heads in axillary or terminal panicles. Pappus of hairs.

1. Leaves whitish-tomentosa beneath

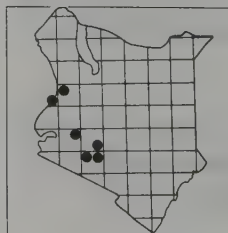
1. *M. bambuseti*

* Leaves glabrous

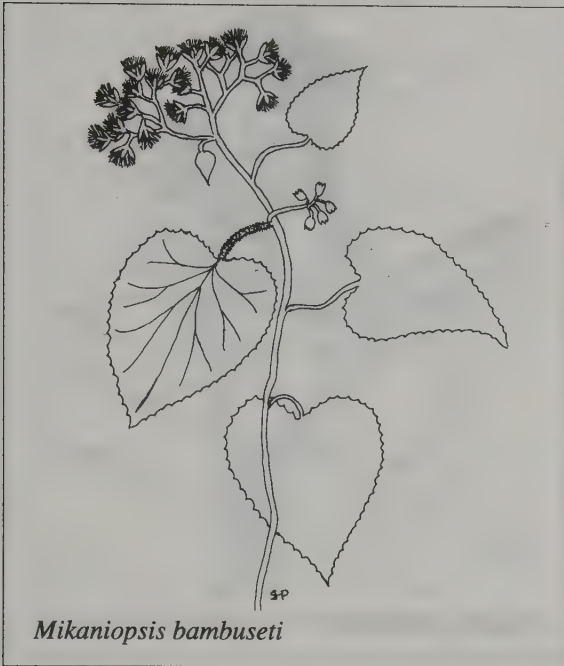
2. *M. usambarensis*

1. *Mikaniopsis bambuseti* (R.E. Fr.) C. Jeffrey
[*M. clematoides* sensu Agnew]

Climber to 10 (+?)m. Leaves broadly ovate, base (sub)cordate, apex acute, margin dentate, 5-12 by 3-



Mikaniopsis bambuseti



9cm, whitish tomentose beneath. Florets white or pale yellow; heads 6-10mm, in 4-7cm long axillary and terminal inflorescences.

K2346; 2100-3000m; I, VII, IX, XI-XII

Dry upland forest and (rejuvenating) bamboo. Reported to flower only rarely.

2. *Mikaniopsis usambarensis* (Muschler) Milne-Redh. Climber, size unknown ("robust"). Leaves ovate, base cordate, apex short-acuminate, margins slightly dentate, 6-10 by 5-7cm, glabrous. Florets cream or yellow; heads about 10mm, in 10-14cm long axillary panicles.

K6; 2240m; VII, X*

Forest margins, SW Mau.

Chemetet, Abasbasiet (KIP).

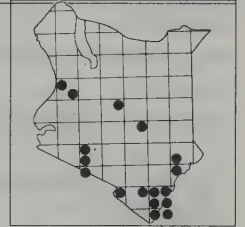
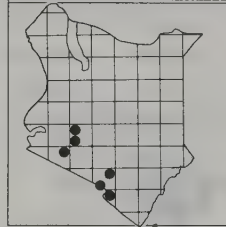
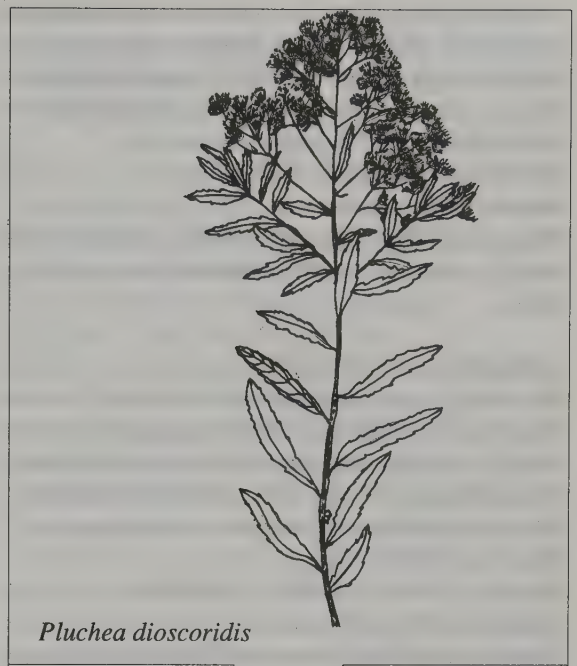
13. PLUCHEA

Shrubs. Leaves alternate, (sub-)sessile. Flowers with tube florets only; heads many, in terminal corymbs. Pappus of scabrid bristles.

1. Leaves decurrent down the stem as dentate wings **3. *P. ovalis***

* Leaves not decurrent down the stem **2**

2. Involucre 8-11mm long; heads 5-15mm across **1. *P. bequaertii***



Pluchea bequaertii

Pluchea dioscoridis

* Involucre less than 5mm long; heads 3-5mm across

2. *P. dioscoridis*

1. *Pluchea bequaertii* Robyns

Shrub 0.8-3m (?). Leaves aromatic, elliptic or obovate, base decurrent, apex acute, margin coarsely dentate (rarely almost entire), 2-7.5 by 1-3cm, densely puberulous, pubescent or sandpapery. Flowers pale mauve or reddish purple; heads 5-15mm across, in 2-6cm long inflorescences.

K3467; 800-1900m; I, V, VIII-X

(Alkaline) lake shores and riverbanks, in groups, often associated with *Acacia xanthophoea*.

NOTE: van Someren 402, from Kinangop, 8000 ft. is near this species.

2. *Pluchea dioscoridis* DC.

Woody herb or shrub 1-3m, once reported as scandent.

Leaves aromatic, slightly succulent, narrowly elliptic or narrowly obovate, base cuneate, apex acute or obtuse, margin dentate, 3-7 by 0.5-2cm, shortly puberulous or sandpapery. Flowers pale mauve; heads 3-5mm across, in 3-8cm long inflorescences.

K12367; 1-1200m, I-VI, VIII-XII

Riverine in dry areas.

Mnyinywa (GIR), Munyonyo (ILW). A decoction of leaves is used for infantile ailments and pregnancy pains.

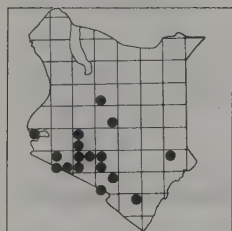
3. *Pluchea ovalis* (Pers.) DC.

Shrub 0.9-3m, much branched and spreading. Leaves elliptic or obovate, base dentate and decurrent as dentate wings on the stem, apex acute or obtuse, margin dentate, 3-10 by 1-5cm, (densely) pubescent. Flowers whitish or yellow-green; heads 4-6mm, in 5-16cm long inflorescences.

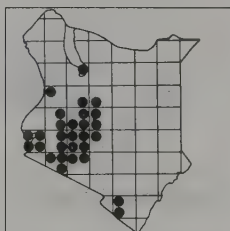
K134567; 1-2000 (2400) m: I-II, IV-XII

Swampy places or dry lugga's.

Cheplelmeiet (KIP), Embeneyoi-Pos (MAA), Ioukumbuu (NDO).



Pluchea ovalis



Psiadia punctulata

14. PSIADIA

Leaves alternate, shiny and resinous with a gum-like secretion. Heads in terminal corymbs. Pappus of scabridulous bristles.

Psiadia punctulata (DC.) Vatke

(*P. arabica* Jaub & Spach)

Shrub 0.5-2.5m. Leaves shiny and sticky, narrowly elliptic (ovate), base cuneate or decurrent, apex narrowly acuminate, margin entire or crenate, 3-14 by 0.7-4cm. Flowers yellow, in many-flowered heads; heads in 2-7cm long inflorescences.

K1234567; 950-2500m; I-XII

Grassland, bushed grassland (especially with *Tarchonanthus*), (evergreen) bushland, and dry forest edges.



Psiadia punctulata

Mwendanguiko (KIK), Chepkumiat (KIP), Atilili (LUO), Olabai (MAA), Konocho (MAR), Mureman-toru (MER), Laba, Labai (SAM), Nosketch (TUG). Maasai use a decoction of leaves to rid calves of fleas.

15. SENECIO

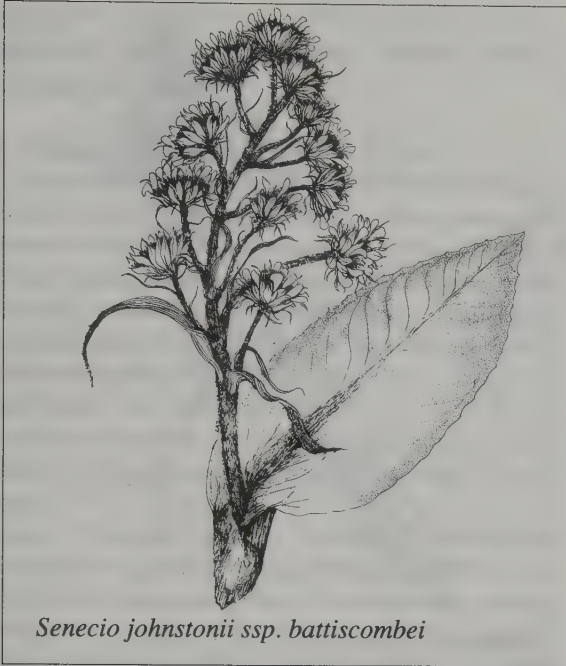
Leaves alternate; heads in corymbs or solitary; phyllaries quite coherent, (sub)equal, occasionally with some smaller ones outside. Florets tubular and often with ray florets as well. Pappus of hairs. All plants treated here, except for *S. maranguensis*, belong in the subgenus *Dendrosenecio* of which the leaves are large and simple, and arranged in a terminal rosette.

- | | |
|---|---------------------------|
| 1. Plants creeping and rooting | 2. <i>S. keniensis</i> |
| * Plants erect | 2 |
| 2. Shrubs, with leaves <15cm long | |
| | 5. <i>S. maranguensis</i> |
| * Plants with single trunk and large leaves | 3 |
| 3. Secondary veins 7-18 | 1. <i>S. johnstonii</i> |
| * Secondary veins 25-35 | 4. <i>S. keniodendron</i> |

Note: a hybrid occurs between 2 and 4 (see 3, below)

1. *Senecio johnstonii* Oliv.

A variable species with many geographical races of high altitudes, now generally treated as subspecies and varieties.



Senecio johnstonii ssp. *battiscombei*

1. Tubular florets only present
ssp. *elgonensis* var. *ligulatus*
- * Tubular as well as ray florets 2
2. Leaves panduriform
ssp. *elgonensis* var. *elgonensis*
- * Leaves narrowly elliptic or obovate 3
3. Leaves short-felty beneath
ssp. *battiscombei* var. *battiscombei*
- * Leaves pubescent to glabrous 4
4. Vegetative stems to 1m
ssp. *battiscombei* var. *dalei*
- * Vegetative stems 3-8m
ssp. *battiscombei* var. *cherenganiensis*

- ssp. *battiscombei* (R.E. & T.C.E. Fr.) Mabberley var. *battiscombei*

(*S. battiscombei* R.E. & T.C.E. Fr.)

Plant erect, 4.5-6m, with dead leaves hanging down. Leaves narrowly elliptic, base attenuate, apex acute, margin dentate, 25-100 by 14-26cm, short-felty and silver-grey beneath. Ray florets bright yellow, 12-22 by 2-4mm. Inflorescence broadly pyramidal, lax, 0.6-1.2 m.

K34; 2900-3900m; II, VI-VII, X

Locally dominant in bogs and streamsides, also on drier sites. Endemic to Mt. Kenya and Nyandarua/

Aberdares.

- ssp. *battiscombei* (R.E. & T.C.E. Fr.) Mabberley var. *cherenganiensis* (Cotton & Blakel.) C. Jeffrey (*S. cherenganiensis* Cotton & Blakel.)

VULNERABLE

Plant erect, 2.5-9m, with dead leaves hanging down. Leaves narrowly elliptic, base attenuate, apex acute or obtuse, margin dentate, 30-60 by 8-20cm, fine-pubescent beneath. Ray florets bright yellow, 13-20 by 2-3mm. Inflorescence broadly pyramidal.

K3; 2450-3300m; I-II, IV-VIII, XII

Riverine or in swampy sites. Endemic to Cherangani Hills.

- ssp. *battiscombei* (R.E. & T.C.E. Fr.) Mabberley var. *dalei* (Cotton & Blakelock) C. Jeffrey (*S. dalei* Cotton & Blakel.)

VULNERABLE

Plant erect, to 1.5m, with dead leaves hanging downwards. Leaves narrowly elliptic, base attenuate, apex acute, margin dentate, 25-50 by 7.5-20cm, densely short-pubescent beneath. Ray florets bright yellow, 14-18 by 2-3mm. Inflorescence broadly pyramidal.

K3; 3000-3300m; VI, VIII-IX, XII

Swamps. Endemic to Cherangani Hills/Marakwet area.

- ssp. *elgonensis* (T.C.E. Fr.) Mabberley var. *elgonensis*

(*S. amblyphyllus* Cotton, *S. elgonensis* T.C.E. Fr.)

RARE

Plant erect, 4.5-7.5m, with dead leaves hanging downwards. Leaves panduriform or petiolate (at lower altitudes), base decurrent, apex rounded or acute, margin dentate, 25-80 by 12-23cm, glabrous but for the barbate-tomentose midrib. Ray florets yellow, 14-19 by 2-3mm; inflorescences oblong-pyramidal.

K35; 2700-4200m; I-III, XII

(Riverine in) moorland. Endemic to Mr. Elgon (also on Ugandan side).

- ssp. *elgonensis* (T.C.E. Fr.) Mabberley var. *ligulatus* (Cotton & Blakel.) C. Jeffrey

(*S. barbatipes* Hedb.)

RARE

Plant erect, 3-7.5m, with some dead leaves hanging downward. Leaves elliptic, base (sub-)cordate, apex rounded or obtuse, margin dentate, 28-90 by 12-30cm, barbate-tomentose beneath. Tube florets only. Inflorescences oblong-pyramidal, 0.9-1.2 m.

K3; 3750-4200m; I-II, V, XII

On sheltered slopes. Endemic to Mr. Elgon (also on Ugandan side).

2. *Senecio keniensis* Bak.

Thin-stemmed, creeping and rooting plants. Leaves with winged petioles. Ray and tube florets present.

1. Leaf indument densely tomentose, abruptly stopping at petiole ssp. *keniensis*

* Leaf indument uniform, glabrous or pubescent ssp. *brassiciformis*

- ssp. *brassiciformis* (R.E. & T.C.E. Fr.) C. Jeffrey (*S. brassiciformis* R.E. & T.C.E. Fries) RARE

Plant creeping, 0.9-1.2m. Leaves elliptic, base attenuate, apex acute, margin dentate, 25-70 by 7.5-20cm. Ray florets yellow, 13-22 by 2-3mm.

K34; 2950-3600m; III, V-VI

Swampy sites; endemic to Nyandarua/Aberdares.

- ssp. *keniensis* (*S. brassica* R.E. & T.C.E. Fries) RARE

Plant creeping, 0.6-2m. Leaves slightly panduriform, apex acute or obtuse, margin dentate, 20-40 by 7-18cm. Ray florets yellow (to purple ?), 14-25 by 2-4mm.

K4; 3300-4500m; I-II, V-XII

Swampy sites; endemic to Mt. Kenya.

3. *Senecio keniensis* ssp. *keniensis* x *keniodendron*

This hybrid is quite common on Mt Kenya.

4. *Senecio keniodendron* R.E & T.C.E. Fries

RARE

Plants erect, 1-6m, sparsely branched, with dead leaves hanging downwards; bark deeply ribbed, corky. Leaves slightly panduriform, apex rounded, margin dentate, 27-60 by 9-20cm, glabrous but for the barbate-tomentose midrib. Tube florets only, yellow. Inflorescence with nodding heads, to 1.2 m.

K4; 3750-4250m; II, VII, IX-X

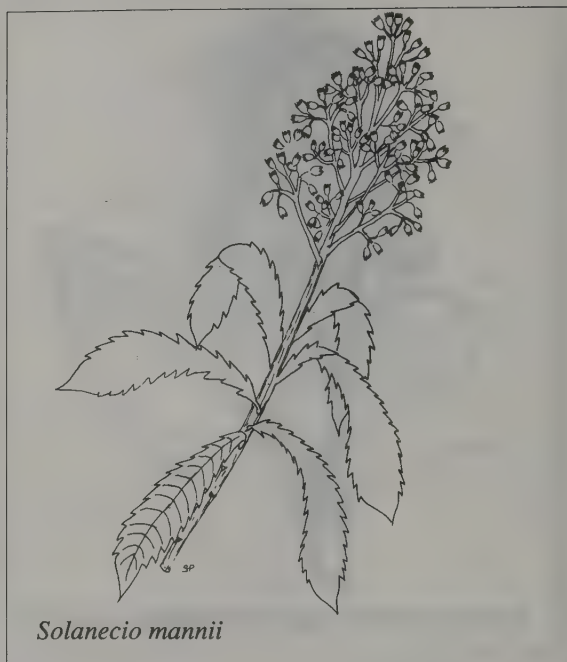
Alpine belt, common. Endemic to Mt. Kenya and Nyandarua/Aberdares.

5. *Senecio maranguensis* H. Hoffm.

Shrub 0.4-3m. Leaves elliptic, base cuneate to rounded (and often with auricles at the base of the petiole), apex acute, margin dentate, 8-15 by 2.5-5cm, pubescent. Flowers yellow, in axillary and terminal panicles.

K3; 3000-3500m; IV*

Hagenia belt and lower moorlands on southern Nyandarua/Aberdares and Cheranganyis.



Solanecio mannii

16. SOLANECIO

Herbs, shrubs or climbers; leaves alternate, simple (in this species), slightly fleshy; tube florets only; inflorescence a large terminal panicle. Pappus of simple hairs.

1. Climber

1. *S. angulatus*

* Shrub or tree

2. *S. mannii*

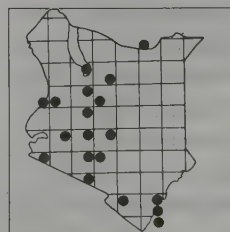
1. *Solanecio angulatus* (Vahl) C. Jeffrey

[*Crassocephalum bojeri* (DC.) Robyns]

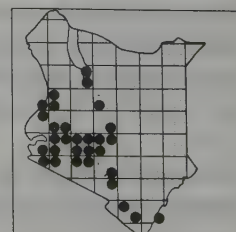
Brittle scandent shrub, woody near base, with subsucculent branches and leaves. Leaves deeply pinnatifid, margins dentate, 6-11 by 4-8cm, glabrous. Flowerheads yellow, in terminal panicles.

K123467; 1-500 (coast) & 1100-2100m (inland); I-III, V-VIII, XI-XII

Forest margins, (evergreen) bushland, riverine vege-



Solanecio angulatus



Solanecio mannii

tation.

Aldakharo (BOR), Reza (GIR), Sarkach (PKM), Laitangeshoi (SAM).

2. *Solanecio mannii* (Hook.f.) C. Jeffrey
(*Crassocephalum mannii* (Hook.f.) Milne-Redh.)

Shrub or tree 1-10m, subsucculent. Stem green, with prominent leafscars, or bark grey. Leaves narrowly elliptic, base attenuate, apex acuminate, margins deeply serrate, 10-40 by 3-11cm. Flowers yellow or orange, scented; heads 5-8-flowered, 5-7mm long, in many-flowered panicles 15-80cm long.

K1234567; (80) 700-2650m; I-XII

In dry or evergreen forest edges, degraded or secondary forest, also riverine and on rocky slopes in bushland.

Mooa, Ilangala (KAM), Musariki, Mwathathi, Muthakwa waati (KIK), Chepkurbet (KIP), Marowo (LUO), Ol-musakwa-entim, Ol-airamirami (MAA), Tergekwa (MAR), Mutomboro (MER), Lugugutt (SAM), Mukorombosha (TAI), Kaibarak (TIR). Often used as a hedge plant.

17. STOEBE

Heathlike, with very densely set leaves. Florets tubular, in many-flowered heads; inflorescences many

together, in sessile axillary clusters. Pappus of barbed bristles.

***Stoebe kilimandscharica* O.Hoffm.**

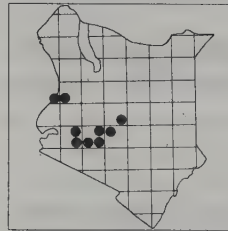
var. *densiflora* O.Hoffm.

Shrub 1.2-6m; bark grey, longitudinally fissured. Leaves linear, 2-4.5 by about 0.5mm, densely tomentose. Florets goldenbrown or yellow.

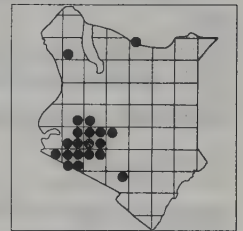
K 2346; (2550-) 2700-3900m; I-III, VIII-X, XII

Heathzone and moorland, also in bamboo- and *Hagenia-Hypericum* zones. Locally dominant.

Muhathu, Muthithinda (KIK), Chepsikara (MAR), Ol-kibejus (MAA), Sesindot, Sabuldet (SEB).



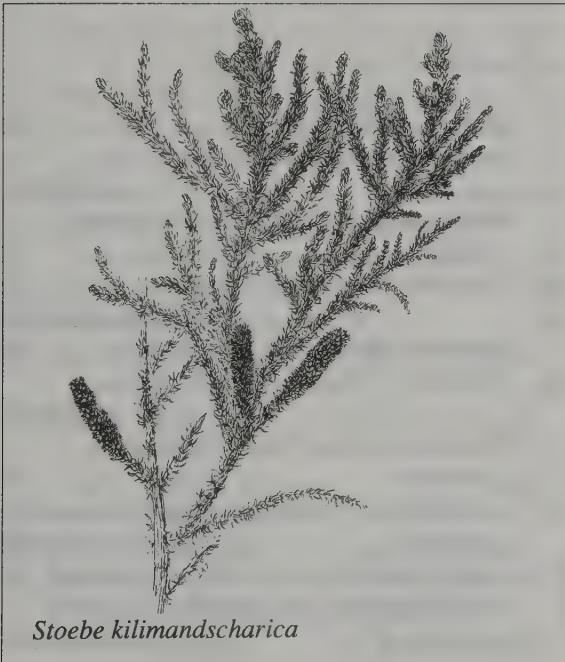
Stoebe kilimandscharica



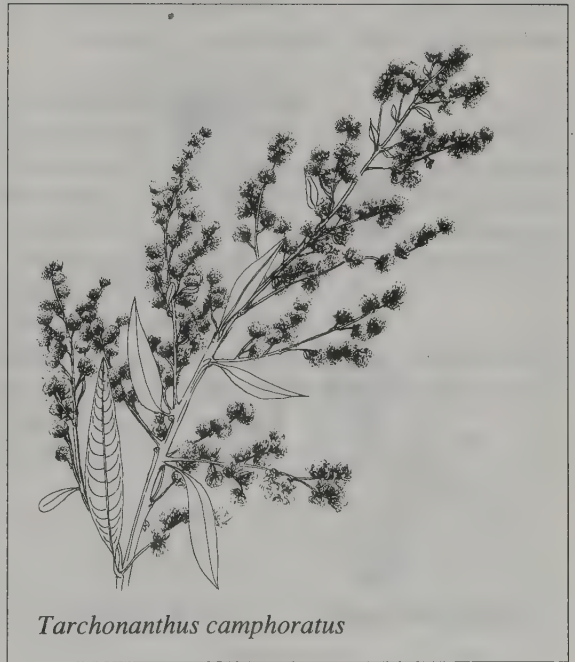
Tarchonanthus camph.

18. TARCHONANTHUS

Leaves alternate, aromatic. Flowers dioecious with tube florets only; heads in much branched axillary and



Stoebe kilimandscharica



Tarchonanthus camphoratus

terminal panicles. Pappus woolly.

***Tarchonanthus camphoratus* L.**

Shrub or tree 1-7.5m; bark brown or grey, longitudinally fissured, peeling in long strips. Leaves camphor-scented when crushed, silvery-white beneath, narrowly elliptic, base cuneate (rounded), apex acute or obtuse, margin entire or (in young plants) serrate, rarely dentate, 3.5-1.5 by 1-4.5cm, felty beneath. Florets white or pale yellow; heads 4-5mm, in 5-20cm long inflorescences. Fruits woolly.

K123456; (1200-) 1500-2300m; I-XII

Common to dominant in evergreen or semi-deciduous bushland, and bushed grassland, especially on stony soils.

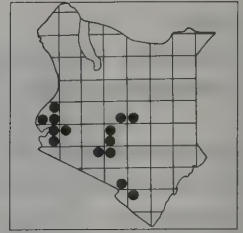
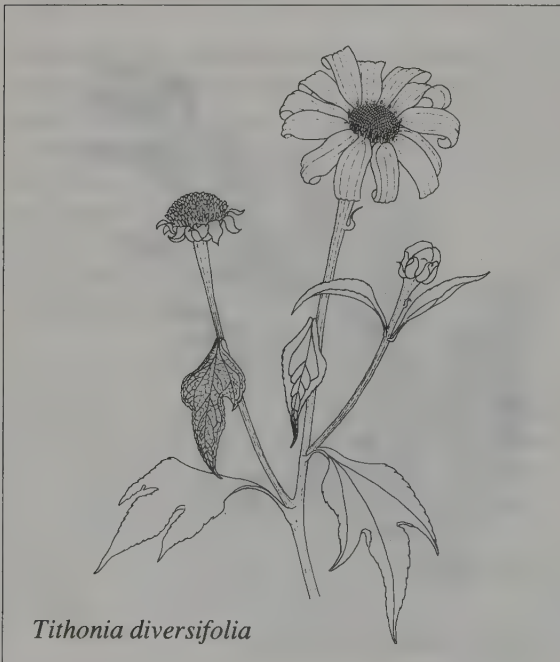
Mkalambati (SWA), Mururicua (KIK), Lelechuets (KIP, TUG), Ol-leleshwa (MAA), Elewa (TUG). Used for hutbuilding and firewood.

19. TITHONIA

Leaves alternate or opposite, lobed. Heads terminal, solitary on a long thickened peduncle. Ray and tube florets present. Pappus of short scales.

***Tithonia diversifolia* (Hemsl.) A.Gray**

Woody herb or (scandent) shrub 1.2-3m. Leaves



Tithonia diversifolia

opposite or alternate, 3(-5) lobed (occasionally the upper leaves are unlobed), base attenuate or decurrent, apex acute or acuminate, margin crenate, 5-17 by 3.5-12cm, densely pubescent beneath; venation palmate. Florets yellow, rays 3-6 by 0.5-1.8cm. Heads solitary on a 6-13cm long peduncle.

K3457; 550-1950m; I-XII

Escaped from cultivation (it is often used as a hedgeplant), gone wild in roadsides near rivers and on waste ground.

20. VERNONIA

Leaves alternate. Heads many, in terminal corymbs. Florets tubular, blue, white or purple, rarely yellow. Pappus of (scales) and bristles.

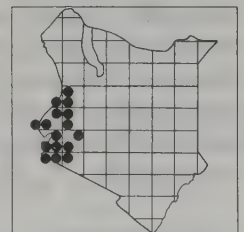
1. Leafbase auriculate (rarely no auricles in *V. auriculifera*)

2

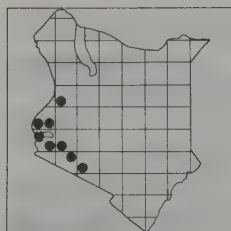
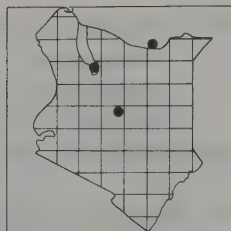
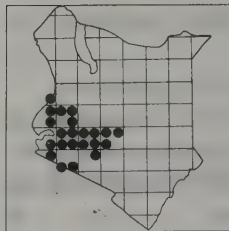
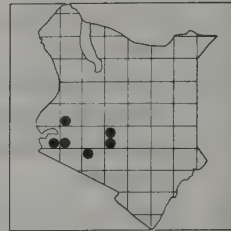


- | | | |
|----|--|---|
| * | Leafbase without auricles | 8 |
| 2. | Heads 1-flowered, 1-3mm across | |
| | 4. <i>V. auriculifera</i> | |
| * | Heads with more florets, more than 3mm across | 3 |
| 3. | Phyllaries with petaloid appendage | |
| | 15. <i>V. hymenolepis</i> | |
| * | Phyllaries without such an appendage | 4 |
| 4. | Phyllaries 8-19mm long; heads solitary | |
| | 10. <i>V. fischeri</i> | |
| * | Phyllaries less than 9mm long, heads in corymbs | 5 |
| 5. | Leaves densely pubescent to woolly tomentose beneath | |
| | 17. <i>V. myriantha</i> | |
| * | Leaves sandpapery, either above or beneath | 6 |
| 6. | Plant of altitudes below 900m; phyllaries 2-5mm long | |
| | 12. <i>V. hildebrandtii</i> | |

- * Plant of altitudes above 1200m, phyllaries 3.5-9mm long 7
7. Leaves sandpapery above, short-pubescent beneath (Taita Hills) 23. *V. usambarensis*
- * Leaves glabrescent above, slightly sandpapery beneath 21. *V. theophrastifolia*
8. Florets yellow or blue-green 9
- * Florets white, mauve or purple 10
9. Florets bright yellow; leaves slightly sandpapery 3. *V. aurantiaca*
- * Florets pale yellow-green or bluegreen; leaves subglabrous 24. *V. wakefieldii*
10. Leaves subcordate or truncate at base 11
- * Leaves cuneate or attenuate at base (rarely rounded) 12
11. Petiole 5-8mm long; heads 11-15mm across 5. *V. biafrae*
- * Petiole 10-25mm long; heads 5-8mm across 20. *V. syringifolia*
12. Involucre (phyllaries) more than 10mm long 13
- * Involucre less than 10mm long 15
13. Tree to 7.5m, found once near Taveta; phyllaries spreading 8. *V. colorata*
- * Shrubs to 4m; phyllaries appressed 14
14. Leaves ovate or elliptic, petiole less than 3mm long 1. *V. adoensis*
- * Leaves narrowly elliptic, petiole 5-10mm long 15. *V. hymenolepis*
15. Pappus violet at flowering time, clearly visible 6. *V. brachycalyx*
- * Pappus white or brown during flowering 16
16. Leaves narrowly obovate (less than 1.5cm wide), not sandpapery, rounded at apex 7. *V. cinerascens*
- * Leaves acute or acuminate at apex, or if rounded then slightly sandpapery above 17
17. Leaves sandpapery above 18
- * Leaves not sandpapery above 23
18. Leaves ovate, densely pubescent or tomentose beneath 19
- * Leaves elliptic or obovate, pubescent beneath 21
19. Heads 13-18mm across 13. *V. holstii*
- * Heads 6-10mm across 20
20. Phyllaries appressed, ovate, more than 2mm wide 8. *V. colorata*
- * Phyllaries spreading, narrowly elliptic, less than 1.5mm wide 26. *V. zanzibarensis*
21. Involucre 2-3.5mm long; leaves with a few obtuse teeth 14. *V. homilantha*
- * Involucre to 9.5mm long; leaves dentate-serrate 22
22. Climber; leaves 3-9 by 1.3-2.4cm 22. *V. urticifolia*
- * Shrub; leaves 10-25 by 3-8cm 18. *V. pteropoda*
23. Phyllaries with appendage near the tip 24
- * Phyllaries without appendage 26
24. Appendage 4-10mm long; heads 10-25mm across 15. *V. hymenolepis*
- *-a Appendage 2-7mm long; heads 5-10mm across 9. *V. dumicola*
- *-b Appendage 10-15mm long; heads 6-10mm across 8. *V. colorata*
- *-c Appendage 1-3mm long; heads 5-15mm across 25
25. Appendage green; leaves elliptic or obovate, 1-2cm wide 19. *V. schimperii*
- * Appendage pink or white; leaves ovate or elliptic, 1.6-9cm wide 16. *V. lasiopus*
26. Twigs puberulous 25. *V. wollastonii*
- * Twigs pubescent or tomentose 27
27. Phyllaries rounded at apex 28
- * Phyllaries acute or acuminate 29
28. Involucre 4-8mm long 8. *V. colorata*
- * Involucre 3-4mm long 2. *V. amygdalina*
29. Leafmargin (sub)entire 8. *V. colorata*
- * Leafmargin rough-dentate 12. *V. hochstetteri*
1. *Vernonia adoensis* Walp.
Woody herb or shrub 0.3-3m. Leaves ovate or elliptic, base cuneate or attenuate, apex acute or shortly acuminate, margin crenate-dentate, 4-15 by 1.5-6cm, tomentose beneath. Florets white or mauve, phyllaries to 15mm long; heads 20-45 across, 1-3 per inflorescence. K2356; 1250-2150m; II, IV-XI (Disturbed) bushland or grassland. Kuom-Tepengwet (KIP), Nyang'ony-Akuodi (LUO), Ol-ekoru (MAA), Kiptamit (MAR). Leaves are crushed in cold water and applied to tick sores by Maasai.



Vernonia adoensis

*Vernonia amygdalina**Vernonia aurantiaca**Vernonia auriculifera**Vernonia biafrae***2. *Vernonia amygdalina* Del.**

Shrub or tree 1.8-7.5m; bark pale grey; twigs tomentose. Leaves ovate or elliptic, base cuneate, apex acute, margin entire or dentate, 5-17 by 2-8cm, (sparsely) pubescent beneath. Florets cream or white, phyllaries 3-4mm long with dark tips; heads 5-9mm across.

K2356; 900-1500m; IV, VIII-IX, XI-XII*

Lake shores, riverine, along luggas.

Omororia (KIS), Omulusya, Musuritsa, Olumulusya (LUH), Olusia (LUO), Cheburiandet (NAN). Branches are termite-resistant.

3. *Vernonia aurantiaca* (O.Hoffm.) N.E. Br.

Scrambler 1.2-4 (8)m, divaricately branching. Leaves ovate or elliptic, base decurrent, apex acute, margin entire or dentate, 2.5-9 by 1-5cm, 3-veined from base, scabridulous on both sides. Florets yellow, phyllaries 2.5-7mm long; heads 5-8mm across, in dense inflorescences.

K1; 1050-1650; II, IV, VII-VIII, X-XI*

Bushland on steep rocky slopes.

Mukmu Chuma (BOR), Ngila (REN).

4. *Vernonia auriculifera* Hiern

Woody herb or shrub, 1.8-7.5m, spreading. Leaves (narrowly) elliptic, base auriculate and amplexicaul, apex acute, margin serrate, 6-50 by 1.5-22cm, densely tomentose beneath. Florets purple or white, phyllaries 4-7mm, purple-tipped; heads 1-flowered, 1-3mm across, in dense inflorescences.

K23456; 1600-2650m; I-IV, VIII-XII.

Forest edges, cleared land, woodland and grassland derived from forests, riverine or along lakeshores.

Muthakwa, Muchatha, Musakwa (KIK), Musabakwa (KIS), Olusia (LUO), Ol-masakwa (MAA), Turogogwa (MAR), Tabenguët (SEB), Tebinguët (TUG). Leaves and stems used in the construction of huts.

5. *Vernonia biafrae* Oliv. & Hiern

(*Vernonia tufnelliae* S.Moore)

(Scrambling) shrub 0.7-1.8m, stems brittle. Leaves ovate, base truncate, apex acute or acuminate, margin coarsely crenate, 1.5-5 by 0.8-3.2cm, puberulous. Florets purple, lilac, or white, phyllaries purple-tipped, 3.5-8mm long; heads 11-15mm across.

K345; 1600-2400m; VIII-X, XII*

Forest edges, thickets, wet grassland.

6. *Vernonia brachycalyx* O.Hoffm.

(Scandent) shrub 1-4 (6)m. Leaves ovate or elliptic, base decurrent, apex acute, margin entire or dentate, 3.5-16 by 1.5-7cm, slightly sandpapery above, pubescent beneath. Florets mauve or white, phyllaries 2-3mm long; heads 3-5mm across, in dense inflorescences; pappus violet at flowering stage, later brown.

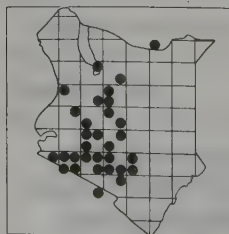
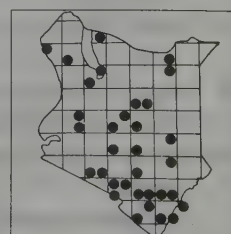
K123456; 1000-2400m; I-XII

Common in dry forest (edges) and semideciduous clump bushland; also riverine and in roadsides.

Mutei (KIK), Kuombereriet (KIP), Kimagoi, Chebongwony (MAR), Ol-ogomati (MAA), Lokomati (SAM), Gugutu (NDO). An infusion of the leaves is used against malaria by Maasai and Kipsigis and Maasai use the twigs to make fire by friction.

7. *Vernonia cinerascens* Sch.-Bip.

Woody herb or shrub 0.4-3m. Leaves narrowly obovate, base decurrent, apex truncate or rounded, margin crenate near the apex, 0.7-4.5 by 0.3-1.5cm, glabrous

*Vernonia brachycalyx**Vernonia cinerascens*

or pubescent, glandular. Florets mauve or purple, phyllaries to 3mm long with a purple tip, heads 3-6mm across.

K1234567; 1-1250 (1650)m; I-IX, XI-XII

Dry bushland, wooded or bushed grassland, subdesert. Emanange (MAA), Mulambu (MER), Lorosero (NDO), Chesuwarian (PKT), Gelakawet (REN), Torau Magifi (SAM), Esirilipong, Ejulot (TUR).

8. *Vernonia colorata* (Willd.) Drake

ssp. *grandis* (DC.) C. Jeffrey

Shrub or tree 3.5-6m. Leaves ovate, base cuneate, apex acute; margin entire or remotely dentate, 6-17 by 3-9cm, fulvous-tomentose beneath. Florets pale mauve or white, phyllaries greenish white, 4-8mm long; heads 6-10mm across.

K47; 100-950m; II, IV, VI-IX*

Riverine or dry bushland.

Fuka mwitu (DIG).

- ssp. *oxyura* (O. Hoffm.) C. Jeffrey (*V. oxyura* C. Hoffm.) with long (to 15 mm) spreading tips to the phyllaries; K7; 750m; —*

Once collected in Lumi R. forest near Taveta.

9. *S. dunicola* S. Moore

Woody herb or shrub to 3m. Leaves narrowly elliptic, base cuneate, apex acute, margin dentate, 4-18 by 0.8-2.5cm, tomentose beneath. Florets pale mauve or white, phyllaries with appendages 2-7mm long.

K5; Kitale-Eldoret area, in swamps.

10. *Vernonia fischeri* O. Hoffm.

(*V. sp. B* of UKWF)

RARE

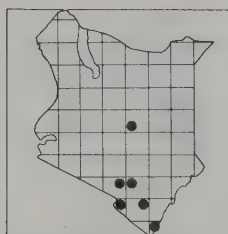
(Scandent) shrub 1.8-3m, occasionally thicketforming. Leaves ovate or elliptic, base auriculate, apex acute, margin entire or dentate, 4-10 by 1.5-4cm, sandpapery. Florets pale violet or mauve, phyllaries 8-14mm long; heads solitary, about 30mm across.

K4; 900-1350m, I-II, XII*

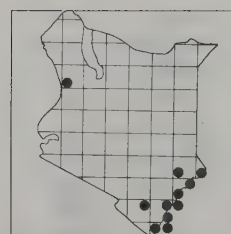
Found only three times at Mwingi and Makueni, once on an inselberg. Endemic.

11. *Vernonia hildebrandtii* Vatke

Woody herb or erect or trailing shrub 0.6-3m. Leaves aromatic when crushed, ovate or elliptic, base (slightly) auriculate, apex acute, margin crenate, 2-7.5 by 1-4.5cm, sandpapery above and short scabrid-pubescent beneath. Florets pale mauve or white, phyllaries 2-



Vernonia colorata



Vernonia hildebrandtii

5mm long, mauve-tipped; heads 3-5mm across.

K127; 1-900m; I-XII

Common in bushland/grassland margins on the coast; inland rare, riverine in dry areas.

Wacha (SWA), Basuba (BON), Chiwaatsa (DIG), Mlakasoma (GIR), Orbisa (ILW), Musuritsa (LUH). Eaten raw for stomach trouble, decoction used as snakebite antidote (coast).

12. *Vernonia hochstetteri* Walp.

(*Vernonia jugalis* Oliv. & Hiern)

Woody herb or shrub 1-3 (5)m. Leaves elliptic or ovate, base cuneate, apex acute or acuminate, margin distantly dentate, 5-28 by 2-11cm, densely pubescent beneath. Florets blue-mauve or pale purple, phyllaries reddish-tipped, 4-7mm long; heads 5-15mm across.

K34567; (1000) 1800-2700m; I-IV, VI, VIII-XII

Forest edges or (disturbed) upland bushland.

Muturanguru (KIK).

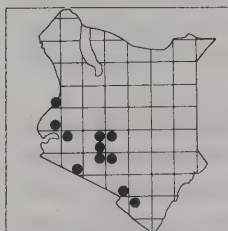
13. *Vernonia holstii* O. Hoffm.

Woody herb or shrub 0.3-2.5m. Leaves ovate, base cuneate, apex acute or acuminate, margin long-dentate, 4.5-15 by 2-7.5cm, sandpapery above, white-tomentose beneath. Florets lilac or white, phyllaries pale reddish purple, with 5-10mm long appendage; heads 13-18mm across.

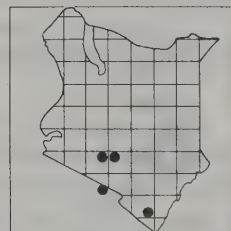
K467; 1000-2050m; I, IV-IX

Dry forest edges and clearings, locally common.

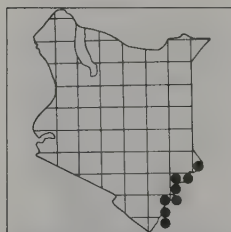
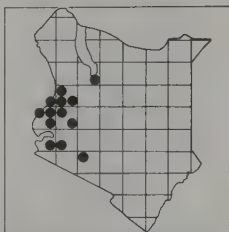
Esadhi (LUO).



Vernonia hochstetteri



Vernonia holstii

*Vernonia homilantha**Vernonia hymenolepis***14. *Vernonia homilantha* S. Moore**

Scrambling shrub 1-3m, spreading and much-branched. Leaves elliptic or obovate, base cuneate or decurrent, apex acute or obtuse, margin with a few obtuse teeth, 2.5-7.5 by 1-3cm, scabridulous above and shortly pubescent beneath. Florets mauve, phyllaries 2-3.5mm long; heads 3-7mm across.

K7; 1-50m; I, III-VIII, X, XII

Light bush or thickets close to the sea, on dunes. Mlalapili (SWA), Mlakasoma (GIR).

15. *Vernonia hymenolepis* A. Rich.

[*V. calvoana* (Hook.f.) Hook.f., *V. homilocephala* S. Moore]

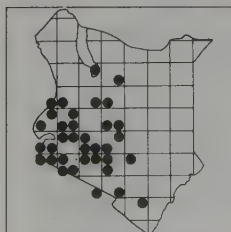
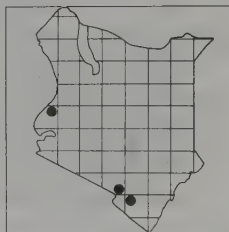
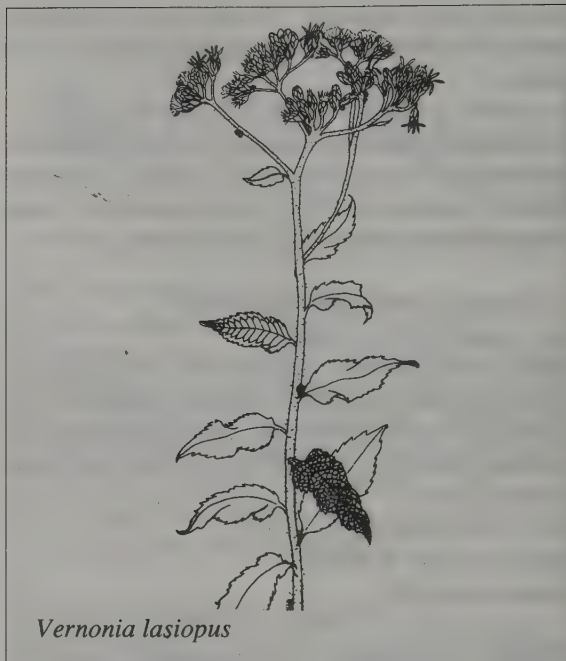
Shrub 1.2-4m. Leaves (narrowly) elliptic, base cuneate or auriculate, apex acute, margin serrate or dentate, 6-23 by 1.5-7cm, pubescent or grey tomentose beneath. Florets pale mauve, phyllaries with white or pale lilac appendages, 4-16 by 5-8mm; heads 10-35mm across. K12356; 1600-2850m; I-III, VI-XII

Disturbed places, grassland and thicket edges, upland bushland, bushed grassland.

Musuritsa (LUH).

16. *Vernonia lasiopis* O. Hoffm.

Woody herb or (semiscandent) shrub 0.9-3m. Leaves ovate or elliptic, base cuneate or decurrent, apex acute, margin roughly dentate, 4-18 by 1.6-9cm, tomentose beneath. Florets pale mauve or white, phyllaries with pink or white appendages 1-3mm long; heads 5-10mm

*Vernonia lasiopis**Vernonia myriantha**Vernonia lasiopis*

across.

K1234567; 1050-2550m; I-XII

Common in disturbed vegetation, (bushed) grassland and riverine woodland or forest.

Muvatha (KAM), Mucatha (KIK), Kwam-tebenguët (KIP), Olusia (LUO), Ol-euguru (MAA), Nkaputi (SAM). Used against malaria by Kikuyu, against scabies by Kamba, against venereal disease by Luo, pounded leaves are applied to sores to kill maggots by Maasai; branches used in building huts.

17. *Vernonia myriantha* Hook.f.

[*Vernonia subuligera* O. Hoffm., *V. ampla* O. Hoffm.]

Shrub 1.8-4m. Leaves elliptic or slightly obovate, base auriculate and amplexicaul, margin long dentate-serrate, 5-40 by 1.5-15cm, pubescent or woolly-tomentose beneath. Florets pale pink or white, phyllaries green with purple tips, 5-7mm long; heads 6-10mm across.

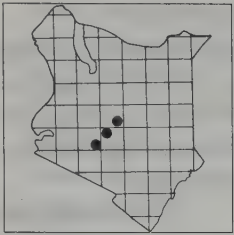
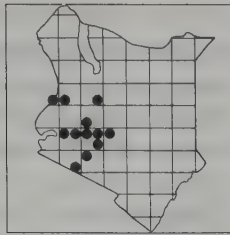
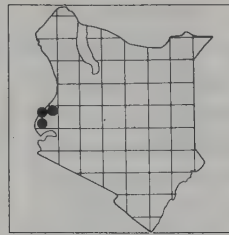
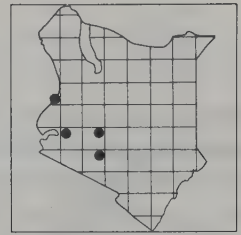
K4567; 1600-1950m; VII, IX-X*

Forest edges and ruderal places.

Kumusobia (LUH). Used as a hedge plant.

18. *Vernonia pteropoda* Oliv. & Hiern

Woody herb or shrub 0.6-2.4m. Leaves elliptic or slightly obovate, base long decurrent, apex acuminate,

*Vernonia pteropoda**Vernonia syringifolia**Vernonia theophrastifolia**Vernonia urticifolia*

margin dentate-serrate, 10-25 by 3-8cm, sandpapery above, sparsely sandpapery-pubescent beneath. Florets pale mauve or white, phyllaries to 10mm long; heads 4-7mm across.

K4; 1900-2550m; I, IV, XI-XII*

Wet montane (riverine) forest.

19. *Vernonia schimperi* DC.

(*Vernonia abyssinica* Walp.)

Shrub 1-1.5m. Leaves elliptic or obovate, base cuneate, apex acute, margin coarsely serrate-dentate, 2-5.5 by 1-2cm, pubescent beneath. Florets white or pale pink, phyllaries white, to 8mm long, with a 2-3mm long green appendage; heads 7-15mm across.

K1; 950-1350m; II, V-VI*

Common in roadsides, bushland, grassland, and forest margins in Marsabit.

20. *V. syringifolia* O.Hoffm.

Woody herb or (scandent) shrub 1-10m, stem black. Leaves ovate, base often unequal, cordate or truncate, apex acute or acuminate, margin dentate, 3-11 by 1.4-5.5cm, scabridulous above, puberulous or pubescent beneath. Florets deep mauve, phyllaries green, occasionally purple-tinged, 6-7mm long; heads 5-8mm across.

K3456; 1900-3150m; I-IV, VII-XII

Ruderal places or edges of drier upland forests.

NOTE: Very close to *V. syringifolia* is *V. subscandens* R.E. Fr. (= sp. E of UKWF) distinguished by the hairy (instead of glabrous) achenes. The other characters mentioned by Agnew, i.e. winged petioles and more tomentose leaves and stems, are rather variable and also found (to some extent) in *V. syringifolia*. *V. subscandens* is a (climbing) shrub of 2.5-4 m.

K14; 1650-2100m; I-III, VIII, XI*

Thickets or dry upland forest margins.

21. *V. theophrastifolia* Oliv. & Hiern

[*V. richardiana* (Kntze.) Pic.-Ser., *V. sereti* De Wild.] Shrub 1-3m. Leaves elliptic or (narrowly) obovate, base broadly auriculate, apex acute or obtuse, margin serrate or entire, 4-29 by 1.5-16cm, scabridulous beneath. Florets purple or mauve, phyllaries 6-9mm long; heads 4-7mm across in large subumbellate inflorescences.

K35; 1200-1800m; VIII, XII*

Presumably bushland; only collected 3 or 4 times.

Sabahua (LUH), Olusia (LUO).

22. *Vernonia urticifolia* A.Rich.

Climber to 8m, ultimate branchlets hanging. Leaves elliptic, base cuneate, apex acute, margin dentate, 3-9 by 1.3-2.4cm, sandpapery-pubescent. Florets pale purple or white, phyllaries purple-edged, to 10mm long; heads 6-12mm across, on large inflorescences.

K345; 2150-2850m; I-V, XII*

(Drier) forest margins or bamboo edges, locally common.

Uruti (KIK), Chemul Kwambereriet (KIP).

23. *Vernonia usambarensis* O.Hoffm.

Woody herb or shrub 0.9-2.5m. Leaves (narrowly) elliptic, base shortly auriculate, apex acute, margin crenate-dentate, 4-9 by 1.5-2.7cm, sandpapery above, short-pubescent beneath. Florets purple or mauve, phyllaries mauve, 3.5-7mm long; heads 5-8mm across.

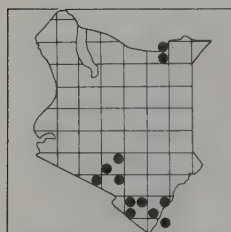
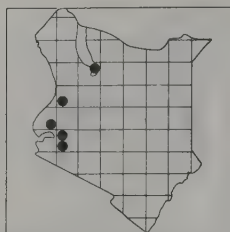
K7; 1250-1350m; II, V, XII*

Collected three times in the Taita Hills, reported to be common in roadsides and around shambas.

Mbanda (TAI). Flowers are thought to cause eyesores.

24. *Vernonia wakefieldii* Oliv.

Semiscandent shrub 0.9-3m, rather succulent-stemmed; twigs white-floccose. Leaves semi-succulent, narrowly elliptic or narrowly obovate, base cuneate or decurrent, apex acute, margin entire, 3-13 by 0.6-4cm,

*Vernonia wakefieldii**Vernonia wollastonii*

more or less glabrous. Florets yellow-green or blue-green, phyllaries with dark tips, to 15mm long; heads 8-15mm across.

K1467; 1-1700m; I-II, V-VIII, X-XI

Dry bushland, often on rocky hillsides.

Kitorja kikubwa (SWA), Mweia (KAM), Kiluman-gonde (TAI).

25. *Vernonia wollastonii* S.Moore

Semiscandent or sprawling shrub or woody herb 0.9m to "very long". Leaves ovate, base rounded or cuneate, apex long-acute, margin dentate, 3-9 by 1.3-3.5cm, puberulous or short-pubescent with small glands beneath. Florets mauve, phyllaries to 6mm long; heads 5-7mm across.

K357; 1600-2250m; I, IV, VIII, X-XI*

Humid forest margins or clearings.

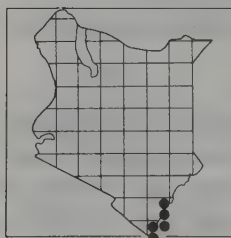
26. *Vernonia zanzibarensis* Loes.

Shrub, occasionally slightly scandent, 1.2-3m. Leaves aromatic when crushed, ovate, base cuneate, apex short-acuminate, margin crenate, 3-14 by 1.5-7cm, sandpapery above, pubescent to tomentose (and pale-green) beneath. Florets pale purple or white, phyllaries 3-8mm long, heads 6-9mm across.

K7; 1-450m; II-III, VI-IX, XI-XII

Common in forest/bushland margins in Shimba Hills and Arabuko-Sokoke; may form pure stands.

Mrusa pungu (SWA), (Chi) waatsa (DIG), Mlazakomo, Mubale (GIR).

*Vernonia zanzibarensis*

244. LOBELIACEAE

Only two of the giant Lobelias have woody stems; the others are described and keyed in UKWF. Latex is present in stems and leaves. The leaves are spirally arranged and close together; flowers in long racemes. Corolla 1-lipped, 5-lobed. Fruit a capsule.

- | | |
|----------------------------|------------------------|
| 1. Leaf margin (sub)entire | 1. <i>L. bambuseti</i> |
| * Leaf margin toothed | 2. <i>L. gibberoa</i> |

1. *Lobelia bambuseti* R.E. & T.C.E. Fries RARE

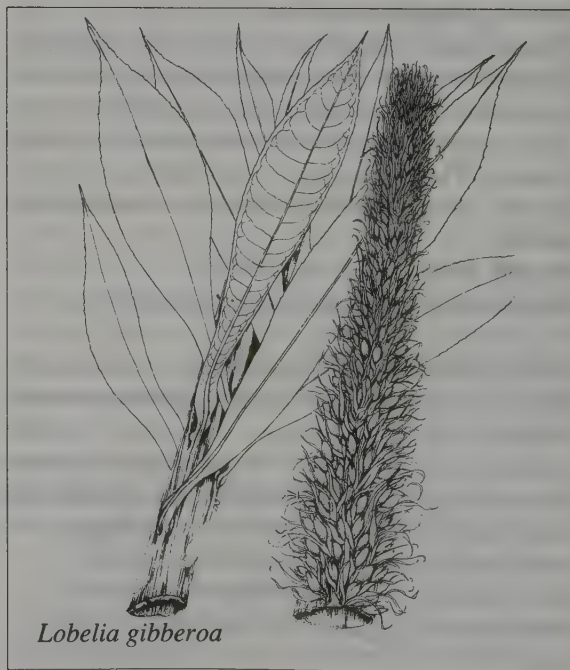
Stem 2.5-4.5m high. Leaves narrowly lanceolate, base sessile, apex acute, 20-50 by 2-6cm, pubescent beneath. Flowers (greenish) cream with mauve tip, in unbranched racemes to 2m long, with many linear bracts; corolla 30-50mm long. Fruit almost round, about 10mm.

K34; 2700-3200m; II, VI-VII, X, XII* (VII)

In clearings in bamboo and podo forest; also in (secondary?) giant heathland. Endemic to Mt. Kenya and Nyandarua/Aberdares.

2. *Lobelia gibberoa* Hemsl.

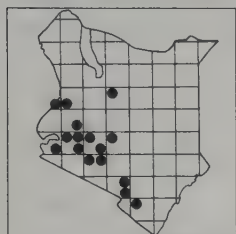
Stems erect and unbranched, or branched near the base, 1.5-7m. Leaves narrowly lanceolate, base sessile, apex acute or acuminate, margin dentate, 25-90 by 4-19cm, pubescent beneath. Flowers greenish,

*Lobelia gibberoa*

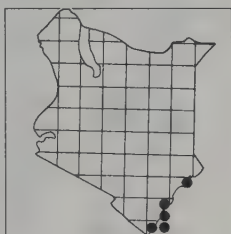
with a purple tinge, in unbranched racemes to 2m high, with many linear bracts; corolla 25-35mm long. Fruit 10-15mm long.

K134567; 1200-3000m; I-II, IV, VI, VIII-XII (XII) Forest margins, secondary forest, swamp- or riverine forest, bamboo edges.

Chepkaset (ELG), Ewewe (KAM), Muhehe (KIK), Serenguet, Chepkurbet (KIP), Omomoa (KIS), Embenyoi-dabas, Oljani-Oseba (MAA), Chepkwaret (NAN), Mukirombosha (TAI).



Lobelia gibberoa



Scaevola sericea

245. GOODENIACEAE

Leaves alternate, without stipules. Flowers with a long tube split on one side, and with 5 lobes. Stamens 5. Fruit a drupe.



Scaevola sericea

1. SCAEVOLA

Scaevola sericea Vahl

[*S. taccada* (Gaertn.) Roxb.]

Shrub 1-3m. Leaves slightly fleshy, obovate, base attenuate, apex rounded, 5-22 by 2-11cm, glabrous; at base, on the stem, with a tuft of hairs. Flowers white, sometimes with a pink tinge, in axillary cymes to 10cm long; corolla tube 8-17mm, lobes 8-13mm long. Fruit white, round, 8-15mm across.

K7; near high-water mark; I, IV, VI, VIII, XI-XII*

On sandy beaches or coral rock; also in mangrove.

Note: the much smaller *S. plumieri* occurs in the same localities. It has black fruits and hardly any hairs in the leaf axil.

249. BORAGINACEAE

Leaves alternate, rarely (sub)opposite, without stipules, usually hairy. Flowers in cymes, 4-7-merous. Fruit a small drupe.

1. Whole plant golden-velutinous; a strand plant

1. *Argusia*

* Plant not golden-velutinous 2

2. Fruit half-enclosed in enlarged calyx, more than 8mm across; style twice forked, or hardly forked 3. *Cordia*

* Fruit not enclosed, 4-9mm across; style once forked 3

3. Calyx lobes valvate; fruit stones with winged ridges 2. *Bourreria*

* Calyx lobes imbricate; fruit stones rough, without ridges 4. *Ehretia*

1. ARGUSIA

Argusia argentea (L.f.) Heine

(*Tournefortia argentea* L.f.)

no illustration

Shrub or tree 1-10m, all parts covered in silky golden or silvery hairs. Leaves obovate, base attenuate, apex rounded to subacute, 10-22 by 3.5-7cm, densely velutinous. Flowers white, in terminal panicles 13-26cm long; corolla 5-9mm long. Fruit greygreen, round, 4-8mm.

K7; 1-10m; I*

Collected once on sand dune near Gedi.

2. BOURRERIA

Similar to *Ehretia* from which (as far as Africa is concerned) it was recently split off, but for the keyed characters.

- | | | |
|----|--|-------------------------|
| 1. | Leaves sandpapery above | 2 |
| * | Leaves smooth | 3 |
| 2. | Leaves not bullate; corolla lobes 4.5-5mm long | |
| | 1. <i>B. lyciaceae</i> | |
| * | Leaves bullate; corolla lobes 2.5-3mm long | |
| | 4. <i>B. teitensis</i> | |
| 3. | Leaves densely pubescent above | |
| | 2. <i>B. nemoralis</i> | |
| * | Leaves glabrous above | 3. <i>B. petiolaris</i> |

1. *Bourreria lyciaceae* Thulin

[*sp. nov. aff. E. buxifolia* of KTS]

Shrub 1-2.5m, often slightly scandent. Leaves usually on short shoots, elliptic, base cuneate, apex obtuse to emarginate, 0.8-3 by 0.4-1.8cm, glabrous but for the spinulose margins. Flowers cream, solitary or in pairs on shortshoots; corolla 7-9mm long. Fruit orange or yellow, round, 6-8mm.

K14; 1-800m; X*

Dense *Acacia-Commiphora* bushland.
Sarega (SOM).

2. *Bourreria nemoralis* (Gürke) Thulin (*Ehretia litoralis* Gürke)

Shrub or tree 1-5m; bark grey. Leaves elliptic, base cuneate or rounded, apex obtuse or rounded, 4-11 by 2.5-6cm, short-pubescent beneath. Flowers white, in lax axillary panicles 7-14cm long; corolla 4-6mm long. Fruit orange or red, round, 4-6mm.

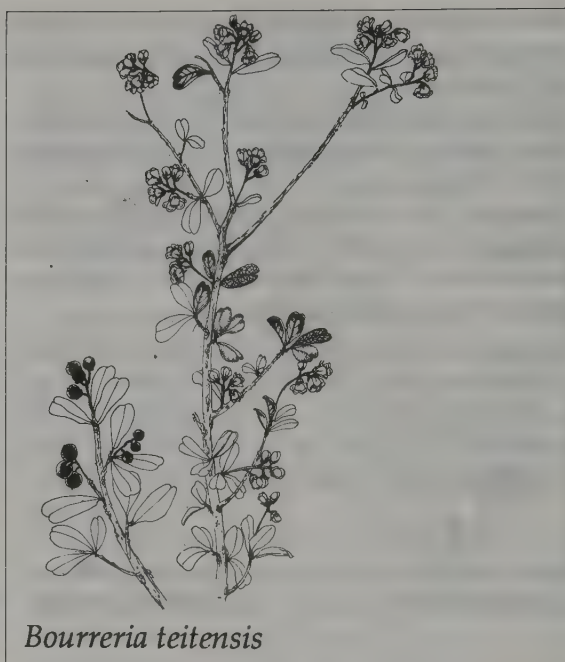
K17; 1-450m; I-V, IX, XI-XII*

Brachystegia woodland, forest margins, dense bushland.

Mbunduki (SWA), Pandajongo (BAJ), Mubalazi (DIG).

3. *Bourreria petiolaris* (Lam.) Thulin (*Ehretia petiolaris* Lam.)

Shrub or tree 1-7.5(12)m; bark pale brown or grey, flaking, with remnant petiole bases, often with insect



Bourreria teitensis

holes; stems often hollow. Leaves elliptic, base cuneate or rounded, often unequal, apex obtuse or rounded, 3-13 by 2-6cm, glabrous. Flowers white, in lax axillary or terminal panicles 5-12cm long; corolla 4-6mm long. Fruit orange to red, round, 4-7mm.

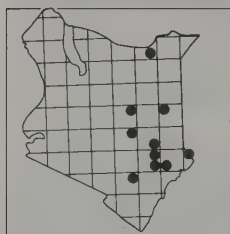
K7; 1-500m; I-II, IV-XII.

Coastal thicket or bushland on coral, *Brachystegia* woodland, dry forest (margins).

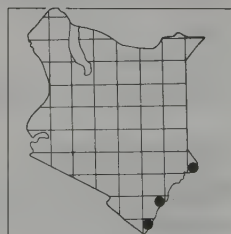
Mpanda-yongoo (SWA), Mbunduki (SWA, GIR, SAN), Mtambai-yongoo (BAJ).

4. *Bourreria teitensis* (Gürke) Thulin (*Ehretia teitensis* Gürke)

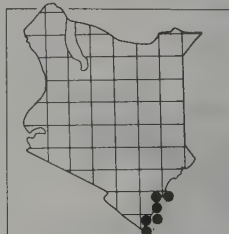
Shrub 1-6m. Leaves elliptic or slightly obovate, base cuneate, subcordate or obtuse, apex rounded or emarginate, 1-5.5 by 0.5-3cm, very sandpapery above. Flowers (greenish) yellow, in few-flowered terminal pan-



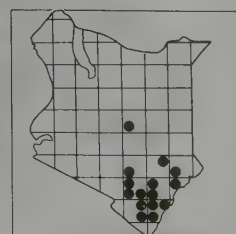
Bourreria lyciaceae



Bourreria nemoralis



Bourreria petiolaris



Bourreria teitensis

icles to 2.5cm long; corolla 5.5-7mm long. Fruit red, round, 6mm.

K147; 1-850m; I-VI, XI-XII

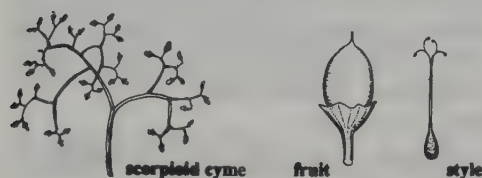
Dry bushland or bushed grassland.

Eneneou (KAM).

3. CORDIA

Flowers 4 or 5-merous, in scorpioid corymbs. Fruit a drupe, half enclosed by the enlarged calyx. Occasionally plants occur with only female flowers.

Note. 15. Species **B** has not been included in the key due to insufficient material.



1. Leaves (sub)opposite
- * Leaves alternate, or in bunches on short shoots
2. Tree; leaves rather elongate, with conspicuous hairs in the nerve-axils; inflorescence lax, the cymes stalked
- * Shrub or small tree; leaves not elongate, without conspicuous hairs in nerve axils and on midrib; inflorescence dense, the cymes sessile
3. Calyx strongly ribbed
- * Calyx not, or hardly, ribbed
4. Flowers orange-red; fruit completely enclosed in the calyx
- * Flowers white or cream; fruit only partly enclosed
5. Climbers
- * Trees or shrubs, rarely somewhat scrambling
6. Leafbase truncate (subcordate); leaves 1.5-9.5cm long
- * Leafbase cuneate or rounded; leaves 9-12cm long
7. Leaves 0.8-3 by 0.4-2.5cm, on shortshoots; N Kenya
- * Leaves larger
8. Leaves entirely glabrous; trunk strongly ridged
- * Leaves not glabrous; trunk not ridged
9. Leaves sandpapery above

- * Leaves not sandpapery
10. Leaves velvety beneath, 3-nerved from the base
- * Leaves different
11. Leaves large, 8-30 by 6-20cm; fruit 20-44mm; Kakamega
- * Leaves and fruit usually smaller
12. Petiole long, three-quarters the length of the leafblade; NE Kenya
- * Petiole shorter
13. Leaves obovate; littoral
- * Leaves not very obovate; not a seashore plant
14. Coastal species, on limestone or in bushland
- * Inland species; dry bushland

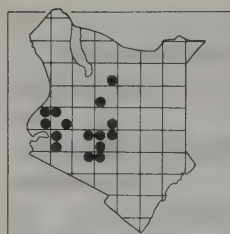
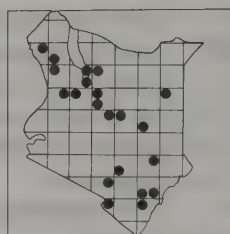
1. *Cordia africana* Lam.

(*C. abyssinica* R. Br.)

Tree 3-15m, to 30m in forest, evergreen; bark rough and fibrous, less often smooth, brown. Leaves (broadly) ovate to almost round, base rounded to subcordate (rarely slightly cuneate), apex (shortly) acuminate, margins entire or dentate, 5.5-20 by 6-13cm, glabrous or slightly sandpapery above, glabrous to tomentellous beneath. Flowers white, in axillary cymes 7-20cm



Cordia africana

*Cordia africana**Cordia crenata*

long; corolla 15-25mm long. Fruit yellow or orange, ovoid, 8-12mm long.

K123456; (750) 1050-2100m; II-III, V-VIII, XI

Wooded grassland, forest, riverine. Common in Kakamega and Meru forests.

Mukumari (STAND, LUH), Wadessa (BOR), Muvutu (KAM), Muringa (KIK), Mukobokobo (KIS), Muzigio (MER), Samutet (NAN), Lboringo (SAM), Mugengere, Mugunguret (SEB), Muringaringa (TAI), Samut (TUG). Wood used for furniture-making and for making beehives; fruit gum used as glue. Fruit edible.

2. *Cordia crenata* Del. ssp. *meridionalis* Warfa

Shrub or tree to 5 (9)m; bark pale grey or brown, often with prominent remains of petioles. Leaves elliptic, obovate or nearly round, base cuneate to rounded, apex rounded or acute, margins crenate or entire, 2.5-8 by 2.5-7cm, pilose but becoming glabrous. Flowers cream or yellow-green, in axillary cymes 2.5-3cm long; corolla 7-9mm long. Fruit orange-red, ovoid, with pointed tip, 7-13mm long.

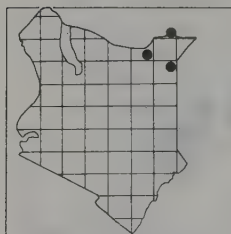
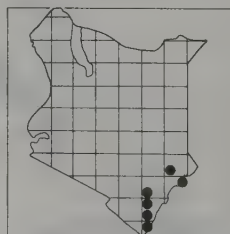
K12467; 400-1050m; -*

Dry bushland.

Mader-orobesa (ORM), Ebitosin (TUR). Fruit edible. A good honey tree.

3. *Cordia ellenbeckii* Gürke

Shrub 1-2.5m. Leaves in bunches on short shoots, elliptic or obovate, base cuneate, apex rounded or emarginate, margins entire or crenate-dentate, 0.5-3

*Cordia ellenbeckii**Cordia faulknerae*

by 0.5-2.5cm, sandpapery above, densely tomentellous beneath. Flowers cream, solitary or in fascicles on short shoots; corolla 20-26mm long. Fruit orange, round, 13-15mm.

K1; 400-800m; IV*

Acacia-Commiphora bush- or woodland, often on limestone.

4. *Cordia faulknerae* Verdc.

Liana 4-12 (more ?)m; bark rough, corky, pale grey or yellowish. Leaves bunched on short shoots, or spaced on terminal shoots, elliptic, base cuneate or rounded, apex rounded or acute, margins entire, 9-12 by 1.5-7cm, glabrous. Flowers cream, in dense inflorescences 1-3cm long; corolla 10-14mm long. Fruit (orange ?) ellipsoid, 16-20mm long.

K7; 1-500m; I, V, IX, XI*

Riverine woodland or moist sites in forest margins. Gora (PKM).

5. *Cordia goetzei* Gürke

Tree 4.5-15m with light grey bark, peeling to show yellow-green underbark, characteristically ridged (almost winged). Leaves ovate or elliptic, base cuneate or rounded, apex rounded or obtuse, margins entire, 3-12 by 1.5-5cm, glabrous. Flowers white or cream, in lax cymes 3.5-8cm long; corolla 8-9mm long. Fruit round or obovoid, 8-15mm long.

K7; 1-750m; I-II, IX*

Riverine; also in groundwater forest or in forest on coral.

Muchuchata (ILW, ORM), Marer girgir (SOM), Siega (TAV).

6. *Cordia guineensis* Thonn.

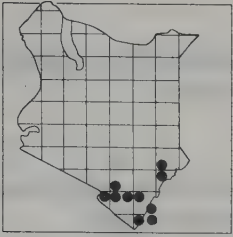
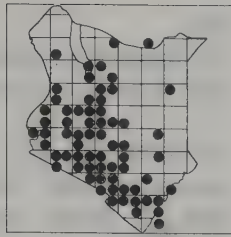
Shrub or tree to 3m, occasionally climbing. Leaves obovate, elliptic or round, base truncate (subcordate), apex shortly acuminate to rounded and mucronate, margin entire or obscurely crenate, 1.5-9.5 by 1-8cm, discolorous, pilose. Flowers (opening at night) creamy yellow, in rather dense cymes to 9cm long; corolla 7-11mm long. Fruit ovoid, 13-15mm long.

K7; 1-10m; VI, XI*

On limestone outcrops or in coastal bush. Gongoni, Muhaka, Kaya Kinondo, Witu and Boni.

7. *Cordia longepetiolata* Warfa

Shrub to 3m. Leaves (broadly) ovate, base truncate,

*Cordia goetzei**Cordia monoica*

cuneate or cordate, apex emarginate or shortly acuminate, margins crenate or entire, 1.5-8 by 1-6cm, glabrous or nearly so. Flowers cream, in rather dense cymes 1.5cm long; corolla 13-15mm long. Fruit orange, ovoid, to 15-18mm long.

K1; collected S of Sabule at 165-200m; V*
Acacia-Commiphora bushland.

8. *Cordia millenii* Baker

Tree to 25m; bark rough and fibrous, flaking in oblong pieces. Leaves broadly elliptic to almost round, base (sub)cordate, apex rounded or briefly acuminate, margins entire or (rarely) dentate in upper half, 8-30 by 6-20cm, glabrous or sandpapery above, pubescent beneath. Flowers white or cream, in large (20-45cm) cymes; corolla 10-19mm long. Fruit (colour ?) ellipsoid with pointed top, 2-4.4 by 1.5-3cm.

K35, Kakamega forest; - *

Mukebu (STAND), Mungoma (LUH). Used in furniture-making.

9. *Cordia monoica* Roxb.

(*C. ovalis* DC.)

Shrub or tree 1-6 (9)m, evergreen; bark smooth or rough, flaking. Leaves alternate, (ob)ovate to almost round, base cuneate or rounded, apex rounded or apiculate, margin denticulate, 2.5-11 by 2-9cm, very sandpapery above, pubescent-sandpapery beneath. Flowers white to dull yellow, male, female or bisexual, in usually terminal cymes 2-6cm long; corolla 7-13mm long. Fruit yellow, orange or red, ovoid, 9-20mm long.

K1234567; 1-2100m; I-V, VIII-XII (I, IV, XI)

Semi-evergreen or deciduous bushland, or bushed grassland, often on rocks or along (seasonal or permanent) watercourses; less often in forest or woodland. Sandpaper tree (STAND), Msasa (SWA), Qotte, Mader (BOR), Muthii (KAM), Muthigi, Mukuo (KIK, MER), Oseno (LUO), Ikuo (MER), Nogirwet (KIP), Araba

(ORM), Toporerwo (POK), Lmantume (SAM), Marer girgir, Marer gom (SOM), Etuntun, Elkaisekiseki (TUR). Fruit edible; leaves used as sandpaper.

10. *Cordia quercifolia* Klotzsch

[*C. sp. near quarensis* of KTS, *C. gharaf* of KTS, p.p.]

Shrub or small tree 0.3-4.5m; bark dark grey or black, corky, deeply longitudinally fissured. Leaves opposite (rarely partly alternate), oblong to elliptic, base rounded or cuneate, apex rounded to slightly emarginate, entire or slightly crenate, 1-7.5 by 0.7-4cm, pubescent, often sandpapery above. Flowers white, in subsessile cymes; corolla 5.5-11mm long. Fruit yellow or orange, ovoid, 10-17mm long, apiculate.

K123467; 50-1200m; III-IV, IX, XI-XII*

Acacia-Commiphora bushland, lava desert.

Myue'deh (DAS), Muthaale, Madera (ILW), Mader, Kote (ORM), Marer-khoh, Marer (SOM)

11. *C. sinensis* Lam.

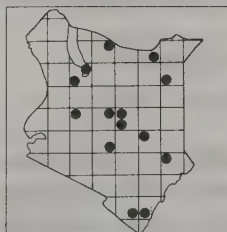
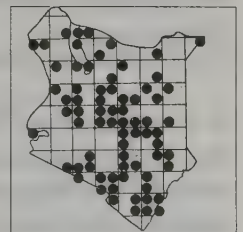
[*C. gharaf* (Forssk.) Aschers]

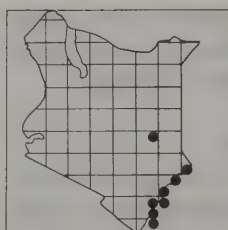
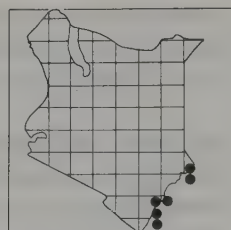
Shrub or tree 1-10m; bark smooth, later fissured, grey to dark grey. Leaves (sub)opposite, narrowly elliptic to (narrowly) obovate, base cuneate, apex rounded or obtuse, usually with entire margins but sometimes dentate near apex, 2-12 by 1-4cm, glabrous or slightly pubescent and often somewhat sandpapery. Flowers white or cream, in terminal cymes 6-7cm long; corolla 8-9mm long. Fruit yellow to orange, ovoid with pointed top, 7-13mm long.

K12467; 1-1250m; III, V-VI, VIII-XII

Common in dry areas (dry bushland, bushed or scattered tree grassland), and very often along luggas or rivers.

Madehr, Mader (BOR), Mad'eera (GAB), Muthea (KAM), Ol-olfot, Ol-dorko (MAA), Toporerwo (POK), Muhahe (PKM), Gaer (REN), Ilgoita (SAM), Maded, Mare(h)r (SOM), Edome (TUR). Fruit edible; wood used for building and furniture.

*Cordia quercifolia**Cordia sinensis*

*Cordia somaliensis**Cordia subcordata***12. *Cordia somaliensis* Bak.**

Shrub 1.5-3.5m; bark pale brown, turning grey and fissured. Leaves obovate, base cuneate, apex rounded, margins entire or crenate in upper half, 3-8 by 1.5-4cm, densely to sparsely long-pubescent, especially on midrib and veins. Flowers white, in terminal cymes 2-5cm long; corolla 8-12mm long. Fruit yellow to orange, ovoid with pointed top, 10-17mm long.

K7: 1-50m; I-IV, VI-XII

Thickets on sand dunes and coral rock.

Muchimba-kasa, Pumbazi (SWA), Mbware (SWA, GIR), Mtia (BAJ). Fruit edible.

Note: the record from the Garissa area (Sangai 940) is the only inland one, and therefore suspect.

13. *Cordia subcordata* Lam.

Shrub or tree 4-7.5m. Leaves broadly ovate to round, base (sub)cordate, apex rounded and/or apiculate, 4-20 by 3-14cm, glabrous. Flowers white or orange, in short few-flowered axillary cymes; corolla 40-45mm long. Fruit (?), ovoid, 18-25mm long.

K7; 1-25m; I-VIII, X-XII

Seashore, inland fringe of mangrove.

Mkomwe (SWA), Mketi (GIR).

14. *Cordia torrei* S. Martins

Shrub or tree 5-18m. Leaves elliptic or obovate, base cuneate, apex acute or obtuse, margin entire or crenate, 6-12 by 3-9cm, almost glabrous above, velvety beneath. Flowers white (?), in terminal panicles 3-9cm long; corolla 12.5-14.5mm long. Fruit ovoid, 15mm long.

K7; VI; Cha Simba, Marenji, and Dzombo.

15. *Cordia* sp. B of FTEA

Shrub 3-5m. Leaves thick, elliptic to obovate, base rounded or cuneate, apex rounded (acuminate), margin dentate or entire, 1-6 by 0.6-4cm, glabrous. Flowers unknown. Fruit orange, ellipsoid, about 13mm

long.

K7; collected twice at Dodori (Kuchar 13691, Muchiri 567) in *Acacia-Commiphora* bushland.

4. EHRETIA

Leaves alternate. Corolla bell-shaped or with a long tube, 4-7-merous. Fruit a small fleshy drupe.

1. Leaves sandpapery above **1. *E. amoena***

* Leaves smooth above **2**

2. Inflorescence branches pilose or pubescent

3. *E. cymosa*

* Inflorescence branches glabrous or nearly so **3**

3. Leaves 0.6-6 by 0.3-4cm, obovate **4. *E. janjalle***

* Leaves 1-18 by 0.5-10cm, elliptic **2. *E. bakeri***

Note. Gilbert 4891 from Lake Chala is probably *E. obtusifolia* A. DC., with pink to purple flowers and densely hairy leaves.

1. *Ehretia amoena* Klotzsch

Shrub or tree 2-7.5m. Leaves obovate or (broadly) elliptic, base cuneate or rounded, apex emarginate, rounded or apiculate, margins crenate near apex (rarely entire), 5-14 by 4-11cm, sandpapery above, pubescent beneath. Flowers white, in lax terminal panicles 5-12cm long; corolla 4.5-5mm. Fruit yellow to red, round, 4-5mm.

K7; 100-300m; II, V*

Bushland on S coast.

Mbunduki-dume (SWA).

2. *Ehretia bakeri* Britten

Shrub or tree 1.5-4(6)m; bark grey. Leaves elliptic, base cuneate or rounded, apex acute or shortly acuminate, up to 18 by 10cm, glabrous or minutely pubescent beneath. Flowers often present before leaves, or on leafless branches, white, in lax (sub-) terminal cymes 2-4cm long; corolla 6-9mm long. Fruit orange-red, round, 5-6mm.

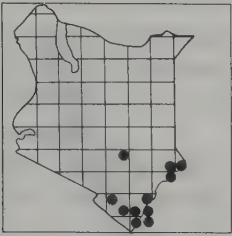
K47; 1-1050m; I, III-IV, IX-XII

Thicket on coral, dry bushland, bushed grassland, dry forest (margins).

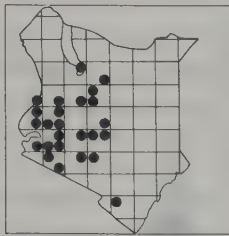
Moza-nyama (SWA, DIG), Keruki (BON), Mnan-yadia (BAJ), Muyamavi (DUR), Mukironda (GIR), Mdana (TAI).

3. *Ehretia cymosa* Thonn.

Shrub or tree 2-9m; bark smooth, grey. Leaves ovate or elliptic, base rounded (slightly cordate), apex acumi-



Ehretia bakeri



Ehretia cymosa

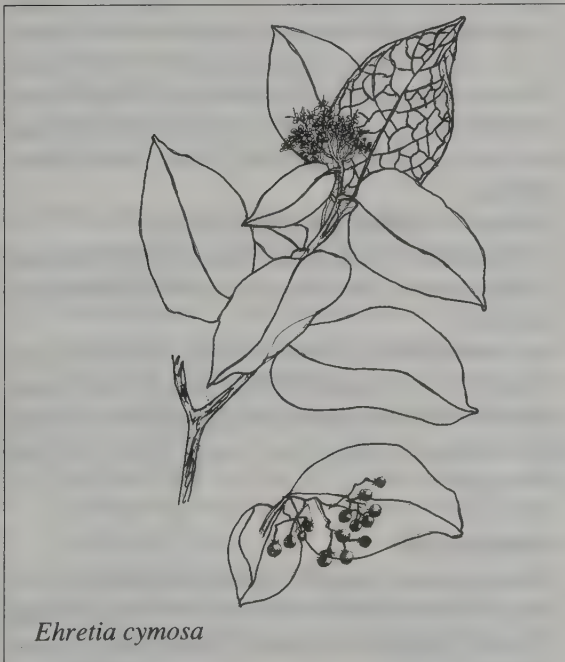
nate, margin undulate, 2-17 by 1.5-9cm, glabrous or with pubescent domatia and veins. Flowers white (pinkish), in dense terminal panicles 3-9 (-15)cm long; corolla 4-8mm long. Fruit orange or red, round, 2-6mm, apiculate.

K1234567; 1050-2300m; I-VII, IX-XII

Forest (margins) or secondary vegetation derived from forest.

Mukui, Murembu (KIK, MER), Mutereriet (KIP), Shekutu, Shikuti (LUH), Endalati-ekolok (MAA), Kabonbonet, Morori (MAR), Boranet, Shamut (NAN), Mundereriet (OKI), Leachachur (SAM), Mundana (TAI), Makongiet, Buruburuti (TUG). The wood is used for tool handles and yokes; branches are used for firesticks.

- var. *divaricata* (Bak.) Brenan: inflorescence branches very shortly pubescent or puberulous.



Ehretia cymosa

- var. *sylvatica* (Gürke) Brenan: inflorescence branches with long spreading hairs.

4. *Ehretia janjalle* Verdc.

(*E. sp.* near *obtusifolia* of KTS)

Shrub 3m. Leaves obovate, base cuneate, apex rounded, 1.6-6 by 0.3-4cm, glabrous but for the spinulose margins. Flowers pale purple, in rather dense terminal cymes 2.5-4cm long; corolla 11-12mm long. Fruit orange, round, 4-5mm.

K1; collected at Dandu near a waterhole at 800m (Gillett 12583). Beckett & White 1781 from Somalia is the same; Hucks 1028 from Tsavo is probably also this species.

Fruit edible.

250. SOLANACEAE

Leaves alternate, without stipules. Inflorescence an axillary cyme. Flowers bisexual, regular, 5-merous. Sepals occasionally enlarging in fruit. Petals united at base. Ovary superior. Fruit a berry or capsule.

1. Corolla saucer-shaped ("potato flower"); hairs often star-shaped; often spiny shrub

3. *Solanum*

- * Corolla bell-shaped or with long, narrow tube; hairs not star-shaped 2

2. Spiny shrub; corolla with narrow tube, 11-16mm long

2. *Lycium*

- * Unarmed shrub; corolla bell-shaped, 4-10mm long 3

3. Fruit not enclosed in calyx; forest or bamboo species

1. *Discopodium*

- * Fruit enclosed in enlarged, papery calyx; weeds or plants of wet open sites 4. *Withania*

1. DISCOPODIUM

Flowers in fascicles. Fruit a berry.

1. Flowers 1-2(3) per leaf-axil; leaves usually glabrous

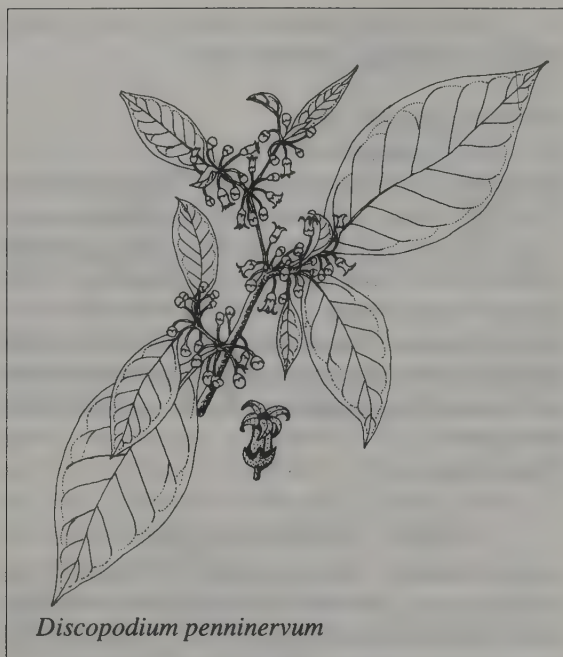
1. *D. eremanthum*

- * Flowers many per leaf-axil; leaves usually floccose-hairy beneath 2. *D. penninervum*

1. *Discopodium eremanthum* Chiov.

(*D. sp.* of KTS)

Shrub or tree 1-5m. Leaves elliptic, base cuneate, apex acute, 3-15 by 1.5-15cm, glabrous or nearly so. Flowers yellow-green, 1-3 together in leaf-axils; corolla 6-10mm long. Fruit red to black, fleshy, globose, 6-



10mm, glabrous.

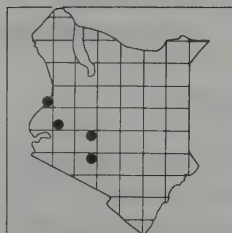
K34; (2350-) 2900-3300m; I-III, VII-VIII, XII
Bamboo zone, *Hagenia* zone, lower heath zone: Elgon,
Nyandarua/Aberdares, Mt Kenya.

2. *Discopodium penninervum* Hochst.

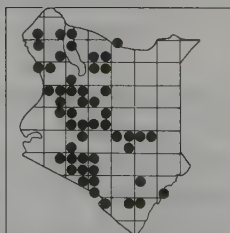
Shrub 1-3m. Leaves elliptic, base cuneate, apex acute or acuminate, 5-27 by 2-14cm, floccose-pubescent beneath (rarely only on veins). Flowers greenish cream, in many-flowered fascicles; corolla 4-7mm long. Fruit orange, fleshy, globose, 5-7mm, glabrous. K34; 2100-2850m; IV-V, VII, X*

Forest margins and roadsides in disturbed forest or *Hagenia* zone.

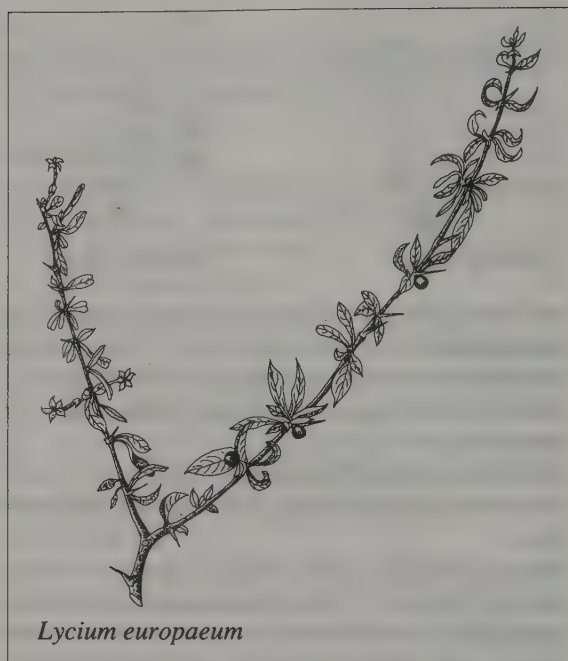
Mundaria (KIK), Kipkabu (TUG).



Discopodium penninervum



Lycium europaeum



2. LYCIUM

Leaves and flowers often on very short shoots. Fruit a berry.

Lycium europaeum L.

Shrub 1-3 (5)m with spines to 15mm long at the nodes. Leaves obovate, base attenuate, apex obtuse or rounded, 0.5-2.5 by 0.3-1cm, rarely larger (to 8 by 3.5cm), glabrous, subsucculent. Flowers white fading to cream or lilac, solitary or in pairs; corolla 11-16mm long. Fruit orange to red, globose, about 5mm across, glabrous.

K123467; 1-2050m; I-XII (XI-I, III-V)

Dry bushland or bushed grassland, riverine bushland (often in clumps), less often ruderal or in scattered tree grassland.

Furs, Fursh (BOR), Fursaa (GAB), Ol-okii (MAA), Pkata (POK), Ad-gorad (REN), Lokei (SAM), Ekake-bekeke (TUR). The leaves are salty and are much liked by animals; a root decoction is used against backache and cough.

3. SOLANUM

Leaves alternate, simple or lobed, often stellate-hairy. Flowers with a short tube and 4-5 lobes, usually reflexed; stamens erect, usually yellow, often opening

by pores. Fruit a berry.

A very difficult genus. I have relied largely on a Polhill typescript, but I have left out the subspecies and varieties.

1a. Plants unarmed 2

1b. Plants with very many soft bristles 17. *S. schumannianum*

1c. Plants thorny 8

2. Leaf with large auricles on stem, at base of petiole 12. *S. mauritianum*

* Leaf without auricles 3

3. Inflorescences axillary 4

* Inflorescences (sub)terminal; forest 7

4. Leaves densely stellate-pubescent 5

* Leaves sparsely stellate-hairy to glabrous; coastal 6

5. Corolla 10-18mm long; fruit 18-40mm across 8. *S. incanum*

* Corolla 8-11mm long; fruit 5-6mm across (NE Kenya) 10. *S. jubae*

6. Leaves fleshy, with subcordate base, 2-5cm long 14. *S. pampaninii*

* Leaves not fleshy, with cuneate base, 5-16cm long 6. *S. goetzei*

7. Corolla tube longer than calyx 3. *S. benderianum*

* Corolla tube shorter than calyx 19. *S. terminale*

8. Inflorescences corymbose, (sub)terminal or leaf-opposed 9

* Inflorescences (extra-) axillary 10

9. Leaves white-felty beneath 5. *S. giganteum*

* Leaves greenish beneath, not felty 15. *S. renschii*

10. Fruit more than 15mm across; flowers usually (except for *S. aculeatum* & *sp. J*) more than 10mm long 11

* Fruit less than 15mm across; flowers usually (except for *S. hastifolium*, *melastomatoides*, *sp. G*) less than 9mm long 16

11. Fruit ovoid, pointed at apex 1. *S. aculeastrum*

* Fruit round 12

12. Leafbase cuneate, rounded, or unequal 13

* Leafbase cordate 4. *S. dennekense*

13. Leaves felty-hairy 8. *S. incanum*

* Leaves hairy, but not felty 14

14. Forest species; inflorescence extra-axillary 15

* Dry bushland species with axillary inflorescence 2. *S. arundo*

15. Dry forest species (Karura, Ndoto's); flowers 11-15mm long 16. *S. richardii*

* Moist forest species (Limuru, Mt. Kenya); flowers 6-9mm long 22. *S. sp. J*

16. Leaves entire, with cordate base; fruit 10-14mm 21. *S. sp. G*

* Leaves entire or lobed; when fruit more than 10mm then leafbase not cordate 17

17. Shrub of coastal forest below 500m 20. *S. zanzibaricum*

* Plants of different habitat (if from coastal strip, from dry bushland) 18

18. Inflorescence a fascicle; dry bushland species 18. *S. taitense*

* Inflorescence with a common stalk 19

19. Fruit 10-15mm; leaves 2-4 by 1-2cm; Dandu (NE Kenya) 13. *S. melastomoides*

* Fruit smaller; leaves larger 20

20. Dry bushland plants from below 1500m; anthers more than 5mm long 8. *S. hastifolium*

* Plants from wetter areas above (1300) 1500m; anthers less than 5mm long 21

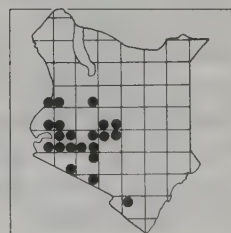
21. Leaves entire; star-hairs with equal rays 11. *S. mauense*

* Leaves lobed or sinuate; star hairs on upper side of leaf with one long ray 9. *S. indicum*

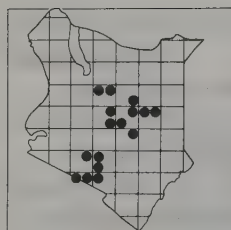
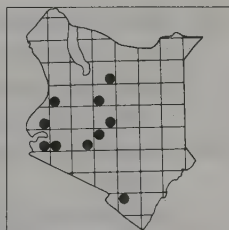
1. *Solanum aculeastrum* Dunal

Shrub 1-6m; branches with scattered thorns to 14mm, flattened at base, straight or curved. Leaves entire, pinnately lobed, apex obtuse or acute, 4-20 by 2-13cm, glabrous above and stellate-pubescent beneath, often spiny beneath. Flowers white or mauve, few in axillary cymes; corolla 8-12mm long. Fruit pale yellow (rarely orange), lemon-shaped with a usually pointed apex, often warty, 30-50 by 20-35mm.

K134567; (1350) 1800-2650m; III-XII
Forest margins or -clearings, roadsides, ruderal sites, riverine.



Solanum aculeastrum

*Solanum arundo**Solanum giganteum*

Mutura (EMB, KIK), Siganet (KIP), Osigawai (MAA), Sikawa (MAR). Used as a hedgeplant; root decoction used against gonorrhoea. Fruit bitter, edible.

2. *Solanum arundo* Mattei

Shrub or tree 0.5-4.5m; stems with recurved thorns to 12mm. Leaves elliptic, more or less pinnately lobed, 1-9 by 0.8-5cm, stellate-pubescent, with straight spines to 22mm long on both sides. Flowers mauve, several per axillary raceme; corolla 10-15mm long. Fruit yellow, globose, 15-30mm across.

K1467; 250-1700m; I-IV, VI, VIII-XII (II, VI)

Dru bushland, bushed grassland, often along luggas or rivers; less often in scattered tree grassland; may be locally common.

Idd, Ano (BOR), Mukonda-kondi (KAM), Sikawei (SAM), Kiri (SOM).

3. *Solanum benderianum* Engl.

Climbing shrub or liana 2-10m, unarmed. Leaves ovate, base cuneate, apex acuminate, 5-14 by 1.5-7cm, glabrous or densely pubescent (in ssp. *runsoriense*). Flowers blue or mauve, many in terminal panicles; corolla 6-12mm long. Fruit black, globose, about 8mm across.

K1 (ssp. *benderianum*), 4 (ssp. *runsoriense*); 2400-2950m; III, VII-VIII, X, XII*

Podo forest margins or bamboo zone: Mt Kulal and S. Nyandarua/Aberdares.

4. *Solanum dennekense* Dammer

Shrub 0.5-1.5 (-4.5)m, with recurved thorns to 12mm. Leaves broadly ovate, base cordate, apex obtuse or rounded, 2-4 by 1.6-3.5cm, densely stellate-pubescent and occasionally with a few small straight thorns (in Somalia with leaves to 7 by 6cm, lobed margins). Flowers lilac, 1-2 together per axil; corolla 10-16mm long. Fruit yellow, globose, 25-35mm across.

K6; 1550-1750m; -*

Dry bushland near Maji Moto and Aitong. Labotwet (KIP), Oltulele-losirgoi (MAA).

5. *Solanum giganteum* Jacq.

Shrub or tree 1-4m; with small (to 5mm) straight thorns. Leaves elliptic, base cuneate, apex acute, 8-35 by 4-14cm, densely stellate-pubescent, especially beneath. Flowers mauve (rarely white), many in (sub)terminal panicles; corolla 8-10mm long. Fruit orange to pale red, globose, 5-8mm.

K13457; 1500-2400m; I, VI-XI*

Forest margins or undergrowth.

Iamaata (NDO).

6. *Solanum goetzei* Dammer

Shrub 0.5-1.5m, unarmed. Leaves elliptic, base cuneate, apex acute, 5-16 by 2-8cm, glabrous or with a few stellate hairs. Flowers pale lilac to mauve, in several-flowered axillary cymes; corolla 6-8mm long. Fruit red, globose, 7-12mm across.

K7; 1-750m; I, IV-VI, IX-XII*

Forest, riverine forest, coastal bushland.

Zombola-nyungu (DIG), Munahu-saka (GIR). A poultice of the leaves is used to draw out abscesses.

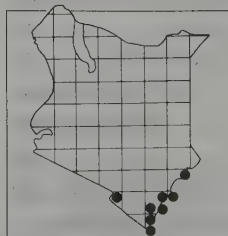
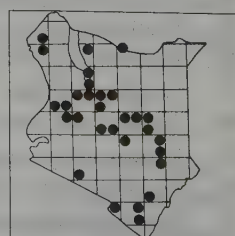
7. *Solanum hastifolium* Dunal

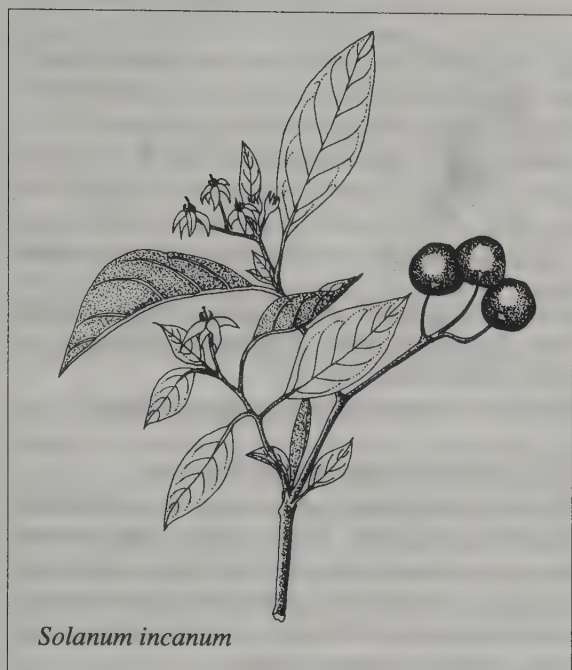
Shrub 0.3-2m or climber to 3m; stem with deflexed thorns of 1-4mm. Leaves lobed (rarely entire) with widest lobes near base, apex acute or obtuse, 2-8 by 0.5-4cm, stellate-pubescent and sometimes with a few prickles. Flowers white to mauve, in few-flowered racemes; corolla 7-12mm long. Fruit (white to) red, globose, 5-8mm across.

K123467; 50-1400m; I, III-V, VIII-XII (V, XI-XII)

Dry (*Acacia*) bushland or bushed grassland.

Entemulua-naibor (MAA), Adokomurai (POK), Gala-out (SAM), Lodongamurai (TUR). A root infusion is used against diarrhoea by the Turkana, and Pokot use a root decoction to treat childrens' smallpox.

*Solanum goetzei**Solanum hastifolium*



8. *Solanum incanum* L.

Shrub 0.5-2.5m, unarmed or with thorns (to 6mm) on stem, branches and leaves. Leaves ovate or elliptic, entire or slightly lobed, base cuneate to rounded, apex obtuse, 4-20 by 2-10cm, densely stellate-felty. Flowers mauve or purple, rarely white, in few-flowered racemes; corolla 10-18mm long. Fruit yellow, globose, 18-40mm across.

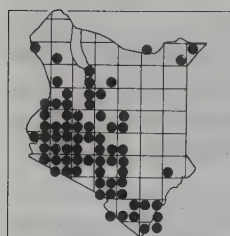
K1234567; 1-2350m; I-XII

Common in waste ground and secondary vegetation; a weed in grassland.

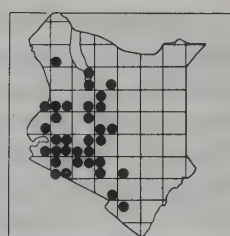
Sodom apple (common), Mutunguja-mwilu (SWA), Idi-gaga (BOR), Mtunguza-koma (DIG), Intuteliot (NDO), (H)iddi-loonni (GAB), Mtonda (GIR), Muhidi (ILW), Mukondu (KAM), Mutongu (KIK, MER), Omotobo (KIS), Lobotwet (KIP), Indulandula (LUH), Ochok (LUO), Endulelei (MAA), Jemokimmerkeny (MAR), Hidi (ORM), Yohola (REN), Ltulelei (SAM), Karir (SOM), Etulelo (TUR). Fruit pulp applied to warts, bleeding wounds and toothaches; fruit juice used to clot milk by Boran.

9. *Solanum indicum* L.

Shrub 0.5-2(4)m; thorns straight or curved, sometimes with wide base, to 10mm on stem and leaves. Leaves entire or (pinnately) lobed, ovate, apex obtuse, 3-20 by



Solanum incanum



Solanum indicum

1-15cm, densely stellate-pubescent, but above with one ray of stellate hairs much longer than others. Flowers white, yellow or mauve, in several-flowered racemes; corolla 5-9mm long. Fruit orange or red (black), globose, 7-10mm across.

K1234567; (1300) 1500-2700m; I, IV-XII

Forest (margins), clump forest thickets, secondary forest, much less often a weed of waste ground.

Iddi gaaga (BOR), Kikonde (KAM), Mutongu (KIK), Labotwet ap teta, Ekerobo (KIP), Ndemulwa, Ndulele (MAA), Jibokemnerkeny (MAR).

10. *Solanum jubae* Bitter

Shrub 1-3m, unarmed. Leaves broadly ovate, with entire margins and rounded apex, 1-7 by 0.8-4cm, densely stellate-pubescent. Flowers pale lilac, in few- to several-flowered cymes; corolla 8-11mm long. Fruit yellow, globose, 5-6mm.

K1; 350-500m; V, XII*

Dry bush- or woodland on limestone.

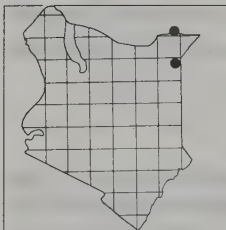
11. *Solanum mauense* Bitter

Similar to *S. indicum*, but for the equal-rayed stellate hairs on the upper side of the leaf.

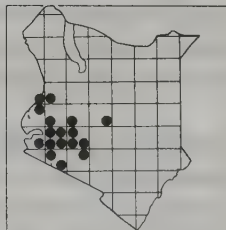
K3456; 1800-2700m; II-V, VII-XII.

Roadsides, waste places, secondary forest, forest margins.

Kikonde (KAM), Labotwet ne tenden (KIP), Egeng'enja mbori (KIS), Entulelei (MAA). Maasai use a root decoction against malaria and chest pains.



Solanum jubae



Solanum mauense

12. *Solanum mauritianum* Scop.

Shrub or tree 1.5-5m, unarmed. Leaves elliptic, base auriculate near stem, apex acute, 10-30 by 4-12cm, densely stellate-pubescent. Flowers mauve, in many-flowered corymbs; corolla 7-10mm long. Fruits yellow, globose, about 10mm.

K345; 1450-2750m; IV-VI, VIII-XII*

An escape from cultivation, especially in Nairobi area, but also around other large towns.

13. *Solanum melastomoides* C.H. Wright

Shrub 0.5-3m, with straight thorns 2-10mm long on stems. Leaves (slightly) lobed, ovate, apex rounded, 2-4 by 1-2cm, stellate-pubescent. Flowers pale purple, in few-flowered cymes; corolla 10-15mm long. Fruit yellow, globose, 10-15mm.

K1; collected once on Dandu at 750m; IV*

Dry bushland.

Loi-loi (SOM).

14. *Solanum pampaninii* Chiov.

Shrub or scrambler, 1-2m, unarmed. Leaves somewhat fleshy, ovate, base subcordate, apex obtuse, 2-5 by 1-3.5cm, rough-stellate hairy. Flowers mauve, solitary or in pairs; corolla 15-24mm long. Fruit red, globose, 12-22mm.

K7; 1-10m; III, X*

Lamu-Kiunga area, in dune thickets.

15. *Solanum renschii* Vatke

Shrub (rarely climbing) 1-3m, with straight spines to 5mm on stems (sometimes on leaves). Leaves elliptic, base cuneate, apex obtuse, 2-11 by 1-5cm, stellate-pubescent. Flowers white or mauve, in terminal many-flowered corymbs; corolla 5-8mm long. Fruit orange or red, globose, 5-7mm.

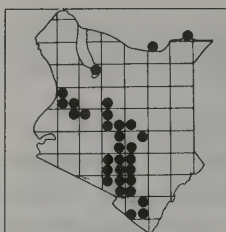
K123467; 350-1500 (1800)m; I-VIII, X-XII

Deciduous or evergreen bushland, often on rocky outcrops; woodland/bushland.

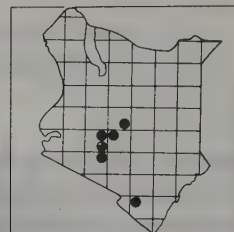
Hiddi gaaga (BOR), Mutongatongu (KAM), Muthugi (KIK), Ketbor (MAR), Mutongu (MER), Ntulelei (SAM), Karihihi (SOM), Lopotwo (PKT). Kamba use the roots against typhoid.

16. *Solanum richardii* Dunal

(Scrambling) shrub to 2.5m; straight thorns to 12mm on stems and leaves. Leaves elliptic, slightly lobed, 8-19 by 3.5-12cm, stellate-pubescent. Flowers lilac, in



Solanum renschii



Solanum schumannianum

extra-axillary few-flowered cymes; corolla 11-15mm long. Fruit red, globose or ellipsoid, 15-20mm.

K14; 1600-2100m; VIII, XII*

Dry forest; recorded from Karura and Ndoto's.

17. *Solanum schumannianum* Dammer

Shrub 1-3.6m; stems densely covered in soft purple bristles to 8mm long. Leaves elliptic, base cuneate, apex acute or acuminate, 6-25 by 2-8cm, glabrous or nearly so. Flowers white, sometimes tinged mauve, in subterminal many-flowered corymbs; corolla 5-7mm long. Fruit red, globose, 6-8mm.

K47; 1350-2700m; I-II, IV-V, VII-X, XII

Moist forest (remnants).

Mutonga, Muthioya (KIK).

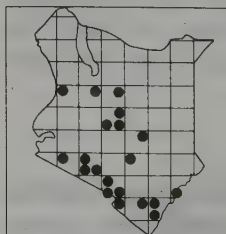
18. *Solanum taitense* Vatke

Woody herb or shrub, occasionally scrambling to 3m, usually less than 1.5m high; small recurved thorns to 3mm on stem and leaves. Leaves ovate, pinnately lobed or entire, base cuneate or rounded, apex obtuse, 2-6 by 0.5-2.5cm, stellate-pubescent. Flowers white, yellow or mauve, in few-flowered axillary fascicles; corolla 5-9mm long. Fruit red, globose, 5-10mm.

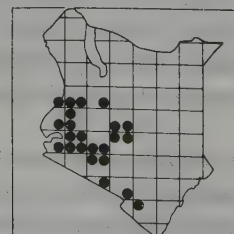
K123467; 1-1800m; III, V-VII, IX-XII

Dry (*Acacia*) bushland or bushed grassland.

Kikondakondi (KAM), Entemelwa (MAA), Golgol (REN).



Solanum taitense



Solanum terminale

19. *Solanum terminale* Forssk.(incl. *S. nakurense* C.H. Wright)

Shrub or liana 0.4-4.5m, unarmed. Leaves ovate or elliptic, base cuneate, apex obtuse to acuminate, 2-14 by 1-7cm, sparsely stellate-hairy when young but soon glabrous. Flowers white, blue or pale violet, in many-flowered terminal panicles; corolla 5-7mm long. Fruit orange or red, globose, 4-10mm.

K134567; (900?) 1350-2950 m; I-XII

Forest margins, riverine forest, thickets (as forest remnants), evergreen bushland, woodland.

Sangainet (KIP), Ol-mainiyen, Ol-edat (MAA).

20. *Solanum zanzibarense* Vatke

Shrub 0.5-1.5m, rarely scandent to 3m; recurved thorns to 6mm on stems and leaves. Leaves entire to deeply pinnately lobed, base cuneate, apex acute, 2-12 by 1-7cm, rough to the touch, sparsely stellate-hairy. Flowers white to mauve, in extra-axillary several-flowered racemes; corolla 5-8mm long. Fruit red or black, globose, 6-10mm.

K7; 1-450m; I, III, VI, VIII-IX, XI-XII*

Dry or moist forest (margins).

Mtungudja (SWA), Katondogogo (GIR). The roots are used against toothache.

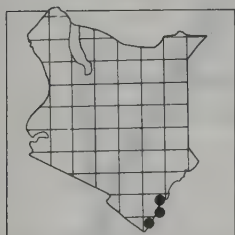
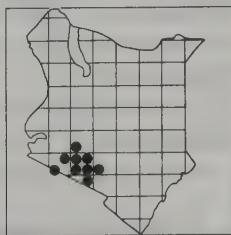
21. *Solanum* sp. 'G' of UKWF: Glover 3854

Shrub 0.5-2m. Thorns 1-3mm, straight or slightly reflexed, on stems. Leaves ovate, base (sub)cordate and often unequal, apex obtuse, 2-6.5 by 1-4cm, densely stellate-pubescent. Flowers blue-mauve, usually solitary and axillary; corolla 14-25mm long. Fruit orange-yellow, globose, 10-14mm.

K346; 1300-2100m; I, III-IX, XI-XII.

Dry bush/woodland on rocky outcrops, usually in (half) shade; less often in riverine bushland.

Entemelua-narok (MAA). Maasai use a root decoction against anthrax.

*Solanum zanzibarense**Solanum* sp. G**22. *Solanum* sp. 'J' of Agnew/UKWF**Verdcourt & Polhill 2993**VULNERABLE**

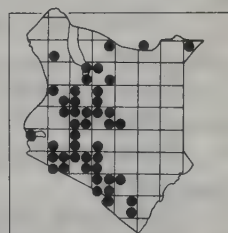
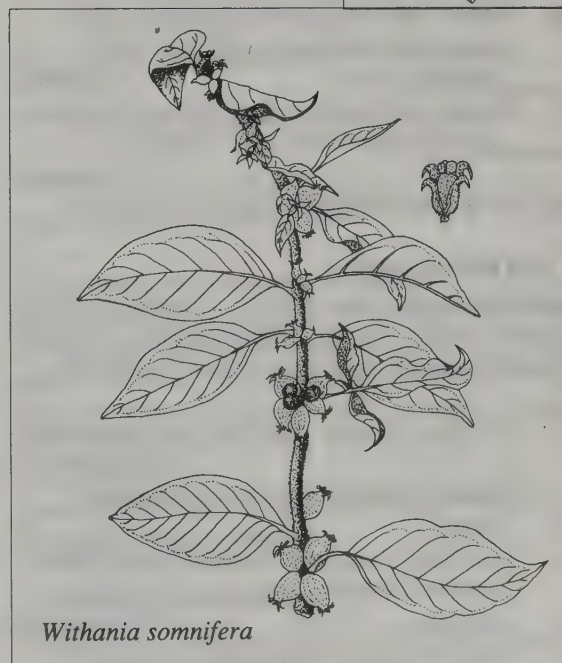
Woody herb or shrub 1-2m, with reflexed thorns to 6mm on stems and leaves. Leaves pinnately lobed, often with very unequal base, 6-14 by 3.5-10cm, sparsely stellate-hairy. Flowers white, 1-3 together in extra-axillary inflorescences; corolla 6-9mm long. Fruit orange to red, globose, 16-22mm.

K4; 2250-2400m; VIII, X*

Moist forests, only known from Limuru and NW Mt. Kenya forest.

4. WITHANIA***Withania somnifera* (L.) Dunal**

Woody herb or shrub 0.5-2m. Leaves ovate, base cuneate, apex acute or obtuse, 3-15 by 1.5-9cm, densely hairy when young (with branched hairs) but later glabrous or nearly so. Flowers yellow-green, in axillary fascicles; corolla 4-5mm long. Fruit orange or red,

*Withania somnifera**Withania somnifera*

round, to 5mm, enclosed in the enlarged, papery calyx. K1234567; 450-2250m; I-XII

Usually in (temporarily) wet sites; along rivers or luggas, on black cotton soil, near (saline) lakes; less often a weed of shambas or pasture, or in forest margins.

Hidigaga, Idigaga (BOR), Idi (GAB), Murambae (KIK), Chepterekia (KIP), Ofuyaendwa (LUO), Olasaiyet (MAA), Kipkogai (MAR), Lopotwo (POK), Leekurun, Lesayet (SAM), Kabarra (TUG), Emotoe (TUR). A root decoction is used against gonorrhoea by the Maasai; Pokot use a plant infusion as a child's tonic; Kikuyu use the plant in an eye treatment.

251. CONVULVACEAE

Leaves alternate, without stipules. Flowers axillary or terminal, regular. Sepals 4-5, often enlarging in fruit. Corolla with tube and 4-5 lobes. Fruit usually a dry capsule.

1. Flowers dioecious (either male or female), 4-13mm long; fruit with membranous, enlarged calyx **1. *Hildebrandtia***

- * Flowers bisexual; fruit with normal or with subwoody calyx **2**

2. Flowers small, 4-5mm long; fruit a capsule of 5-6mm **3. *Metaporana***

- * Flowers and fruits larger **3**

3. Flowers with very narrow tube of 9-11cm long; fruit indehiscent, with subwoody enlarged calyx **5. *Turbina***

- * Flowers with wider (> 3mm) tube of less than 8cm; fruit dehiscent with normal calyx

2. *Ipomoea*

See also **4. *Stictocardia incompta*** on page 649

1. *HILDEBRANDTIA*

Small-leaved dry area shrubs. Flowers *dioecious*, axillary. Sepals unequal in female flowers. Fruit a 1-4-seeded capsule, enveloped in the enlarged calyx.

1. Flowers 5-merous; fruit with 3 enlarged sepals **3. *H. somalensis***

- * Flowers 4-merous; fruit with 2/4 enlarged sepals **2**

2. Fruit with 2 large and 2 smaller sepals; sepals in flower almost round (male) or unequal (female) **2. *H. sepalosa***

- * Fruit with 2 large sepals; sepals in flower

narrow (male) or equal (female)

1. *H. obcordata*

NOTE: *H. sepalosa* and *H. obcordata* might be subspecies of *H. africana*.

1. *Hildebrandtia obcordata* S.Moore

Shrub 0.3-2.5m. Leaves in fascicles on arrested short-shoots, obovate, base cuneate, apex emarginate or obtuse, 4-20 by 3-11mm, glabrous or with some appressed hairs. Flowers yellow or cream, in fascicles of 1-4 with the leaves; corolla 6-13mm long. Fruit about 5mm across, hidden within 3 membranous sepals to 23 by 19mm.

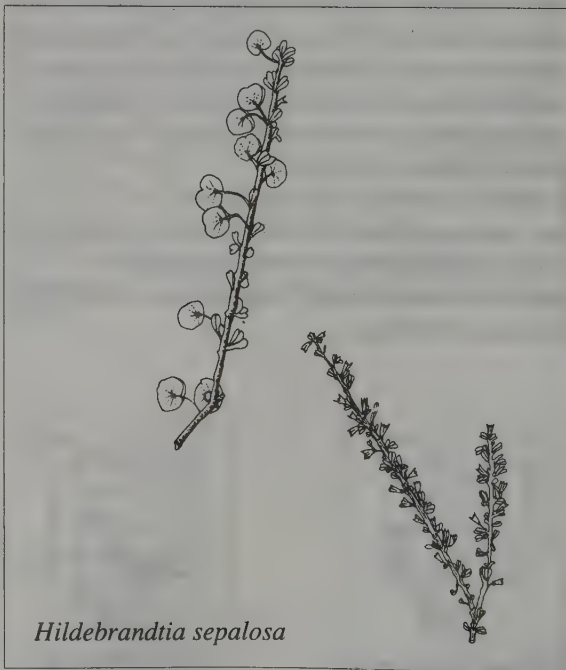
K1234; 350-1450m; III-V, VII, XI-XII*

Dry bushland, often near luggas or in *Acacia-Sansevieria* thickets.

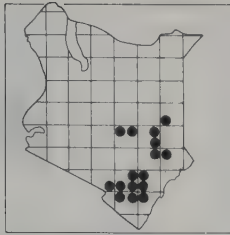
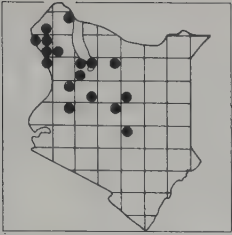
Nyirmenwo (PKT), Korobo (SOM), Egong (TUR). Root infusion used against constipation.

2. *Hildebrandtia sepalosa* Rendle

Shrub 0.5-2m. Leaves fascicled on short shoots, spatulate, base cuneate, apex obtuse and often with a tiny mucro, 3-11 by 1-4mm, sparsely pilose. Flowers white or cream, 1-4 together; corolla 6-7mm long. Fruit hidden in calyx, the outer sepals to 12 by 12mm, the inner smaller.



Hildebrandtia sepalosa



Hildebrandtia obcordata *Hildebrandtia sepalosa*

K1467; 50-650m; I-II, IV-V, VIII-XII (XI-XII)

Dry (*Acacia-Commiphora*) bushland.

Wogho (ILW), Jirmach (ORM), Haldid, herin (SOM).

3. *Hildebrandtia somalensis* Peter

Shrub to 2m, sometimes with twining branches. Leaves in fascicles, obovate, to 20 by 7mm, pubescent or glabrescent. Flowers white or yellow, 1-4 together; corolla 4-7mm long. Fruit with 3 enlarged sepals, to 14 by 12mm; other 2 sepals minute.

K1; collected once in dry deciduous woodland on limestone, between Ramu and Malka Mari (Mandera Distr.) at 400 m.

Note: at Dandu (W. Mandera distr.) Gillett 12672 represents an intermediate between *H. obcordata* and *H. villosa*.

2. IPOMOEA

Occasionally containing white miky sap. Flowers axillary, solitary or in cymes. Corolla regular, with a long tube and a saucer-shaped limb, usually hardly lobed. Fruit a 3-10-valved capsule. Seeds with long (more than 5mm) hairs, except in *I. hildebrandtii* and *I. rubens*.

1. Plant flowering when leafless 2
- * Flowers and leaves present 4
2. Flowers few per cyme; corolla 37-45mm long 11. *I. triflora*
- * Flowers solitary; corolla less than 28 or more than 55mm 3
3. Flowers pure white, 55-80mm long 6. *I. lapidosa*
- * Flowers with purple centre, 20-28mm long (stems spiny) 3. *I. donaldsonii*
4. Leaves palmately lobed; coastal climber 7. *I. mauritania*
- * Leaves entire (except rarely *I. rubens*, inland species) 5
5. Petiole with 2 glands at apex 6

- * Petiole without glands 9
- 6. Flowers pure white, with frilly-edged lobes 7
- * Flowers purple, or with purple centre; not frilly 8
- 7. Flowers solitary; found above 900m 6. *I. lapidosa*
- * Flowers usually several per inflorescence; found at Ijara (90m) 8. *I. paolii*
- 8. Flowers solitary, 27-50mm long; leaves less than 7 by 5cm 2. *I. cicatricosa*
- * Flowers several per inflorescence, 45-110mm; leaves more than 8 by 7cm 4. *I. hildebrandtii*
- 9. Leaves reniform, 5-12 by 5-18mm; corolla 20-28mm long 3. *I. donaldsonii*
- * Leaves larger; corolla more than 30mm long 10
- 10. Leafbase rounded; flowers rose or purple, in dense cymes; forest climber, coast 12. *I. urbaniana*
- * Leafbase cordate; if coastal, then flowers white in lax cymes 11
- 11. Flowers 30-45mm long 12
- * Flowers 50-88mm long 13
- 12. Flowers purple; swamp species 9. *I. rubens*
- * Flowers cream or yellow with purple centre; NE Kenya bushland 11. *I. triflora*
- 13. Flowers pure white; coastal bushland below 200m 1. *I. albivenia*
- * Flowers with purple centre; inland species above 500m 14
- 14. Bracts of inflorescence (4-) 7-13mm wide 10. *I. spathulata*
- * Bracts of inflorescence about 2mm wide 5. *I. kituiensis*

NOTE: intermediate between these 2 species occur (e.g. Lucas 158 from Kongelai).

1. *Ipomoea albivenia* (Lindl.) Sweet

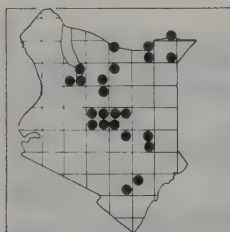
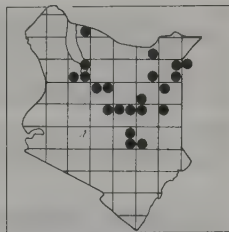
Woody climber. Leaves (very) broadly ovate, base cordate, apex obtuse or acute, 3-12.5 by 3-17.5cm, finely tomentose beneath especially on the veins. Flowers white, few per lax cyme; corolla to 8.8cm long. Fruit ovoid, 16-22 by 12-16mm.

K7; 50-200m; -*

Coastal bushland. Collected in the last century by Wakefield, near Mombasa.

2. *Ipomoea cicatricosa* Bak.

Shrub 1-3m with prominent leaf-scars on stem. Leaves

*Ipomoea cicatricosa**Ipomoea donaldsonii*

(broadly) elliptic, base rounded, apex obtuse, 1.5-6.5 by 1-4.5cm, appressed-hairy beneath. Flowers pink, mauve or purple, solitary and axillary; corolla 2.7-5cm long. Fruit 10-12 by 8-11mm.

K147; 300-1200m; I-II, IV-VII, X-XII (V, XII)

Acacia-Commiphora bushland, often on lava or on rocky soil.

Embe (BOR), Lokitengi, Ldolol (SAM), Weil-wodha, weil-haren, Urbi (SOM), Ekuyenit (TUR).

3. *Ipomoea donaldsonii* Rendle

Shrub 1-3m, sometimes with semi-climbing branches; branchlets becoming spine-tipped. Often flowering when leafless. Leaves reniform, base cordate, apex rounded or emarginate, 0.5-1.2 by 0.5-1.8cm, pubescent (beneath). Flowers white to pink, with purple centre, solitary and axillary; corolla 20-28mm long. Fruit ovoid, 7-10mm long.

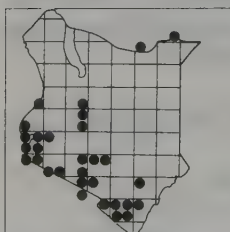
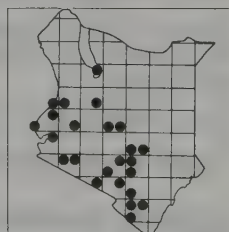
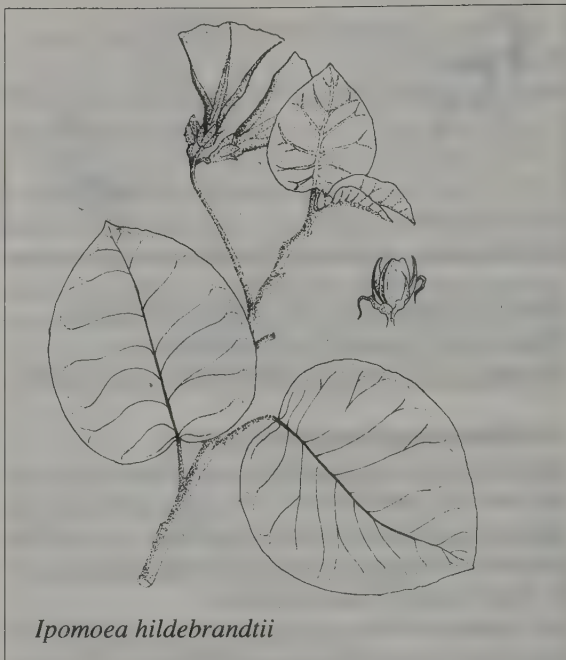
K147; 100-1150m; I-II, IV-V, VII-VIII, X-XII (IV, XII)

Acacia-Commiphora bushland, where it may be common on stony ground; less often in woodland.

Jirmocho (BOR), Barribote, Birribote (SOM, BOR).

4. *Ipomoea hildebrandtii* Vatke

Shrub or woody herb 0.5-3m. Leaves (broadly) elliptic or ovate, base rounded or cordate, apex acute or obtuse, 8-22 by 7-17cm, pubescent beneath; petiole with 2 glands at apex. Flowers white with purple centre or completely mauve or lilac, in many-flowered

*Ipomoea hildebrandtii**Ipomoea kituiensis**Ipomoea hildebrandtii*

cymes; corolla 45-115mm long. Fruit globose, 10-12mm.

K134567; 300-1950m; I, III-XII (V)

Bushed or wooded grassland, roadsides.

OI-tiameleteti (MAA).

Verdcourt has established 4 subspecies for Kenya, but for the purpose of this book I am treating the species without going into subspecies.

5. *Ipomoea kituiensis* Vatke var. *kituiensis*

(Climbing) shrub 1-8m. Leaves broadly ovate to reniform, base cordate, apex obtuse, acute or bilobed, 4-20 by 4-18cm, more or less pubescent beneath. Flowers cream to pale yellow, with mauve or purple centre; in several- to many-flowered cymes; corolla 5-8cm long. Fruit ellipsoid, 15-20 by 12-14mm.

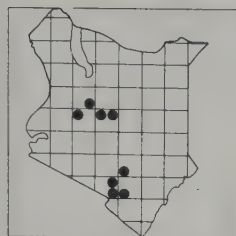
K1234567; 500-2050m; II, IV-XI (V)

Dry bushland, semi-evergreen thicket, woodland, wooded grassland, in old cultivations. May be locally common.

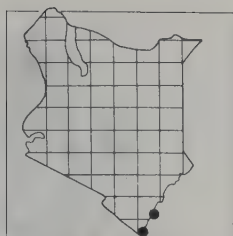
Imukundu (KAM), Obinju, Ongata (LUO), Libin-gubingu (LUH), OI-diyamiledei (MAA), Eneket (TUR). Luo use the roots against stomach-ache.

6. *Ipomoea lapidosa* Vatke

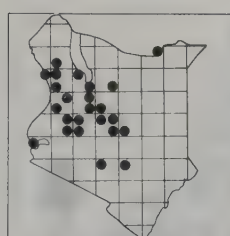
Liana to 9m. Often in flower or fruit when leafless.



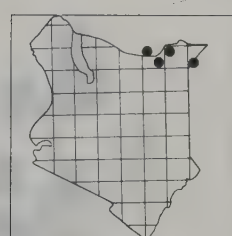
Ipomoea lapidosa



Ipomoea mauritiana



Ipomoea spathulata



Ipomoea triflora

Leaves ovate, base cordate, apex rounded and mucronate, 5-10.5 by 4-8cm, pubescent on the veins beneath; petiole with 2 glands near apex. Flowers pure white (opening at night), solitary; corolla 55-80mm long, with frilly-edged lobes. Fruit ovoid, 20-25 by 11-15mm.

K1346; 900-1500m; III-IV, VI-VII* Endemic.

Woodland or bushland in very rocky sites.

Lokiteng (SAM), Kwake (TUR).

7. *Ipomoea mauritiana* Jacq.

Liana, 2-3m. Leaves palmately 3-9-lobed, 6-24 by 6-21cm, glabrous. Flowers purple, in few-flowered cymes; corolla 50-60mm long. Fruit ovoid, 12-14 by 8-10mm.

K7; 1-300m; V-VII*

Forest margins, secondary bushland, often close to the beach.

8. *Ipomoea paolii* Chiov.

Liana. Leaves (broadly) ovate, base cordate, apex acute or obtuse, 2.5-9 by 1.5-9cm, floccose-pubescent or velvety; petiole with 2 glands near apex. Flowers white, 1-4 together near shoot apex; corolla 50-80mm long, with frilly-edged lobes. Fruit ovoid, 23 by 18mm.

K7; collected twice in bushland in Ijara area, ~ 90 m.

9. *Ipomoea rubens* Choisy

Semi-woody climber to 4m. Leaves entire or rarely 3-lobed, base cordate, apex acuminate, 5-17 by 4-14cm, glabrous to velvety. Flowers purple, in few-to many-flowered cymes; corolla 30-45mm long. Fruit globose, about 13mm.

K56; 1100-1200m; II, VI*

Swamps with papyrus or sedges: Lake Victoria and Amboseli.

10. *Ipomoea spathulata* Hall.f.

Shrub, occasionally with climbing branches, 0.5-4m. Leaves broadly ovate to round, base cordate, apex obtuse and apiculate, 8-16 by 8-15cm, glabrous above and pubescent beneath; venation palmate. Flowers cream with a red or purple centre, in several-flowered cymes; corolla 50-75mm long. Fruit ovoid, 13-16 by 11-13mm.

K123456; 550-1900m; I-XII (V).

Dry bushland; less often in woodland, semi-evergreen bushland or dry forest margins.

Osilli (BOR), Kiungu (KAM), Kapkerengerwa (MAR), Talamach (PKT), Logiteng (SAM), Tobi (SOM), Ekuyenit, Emartai (TUR). Tugen give a root soup to babies.

11. *Ipomoea triflora* Forssk.

Woody climber to 3m; stems rough with closely set, minute warts; often flowering when leafless. Leaves ovate, base cordate, apex acuminate, 2.5-6 by 2-4cm, sparsely hairy. Flowers cream or yellow, with a purple centre, few per cyme; corolla 37-45mm long. Fruit ovoid, about 17mm long

K1; 350-850m; V-VI, XII*

Acacia-Commiphora bushland or woodland.

Rubissa (SOM).

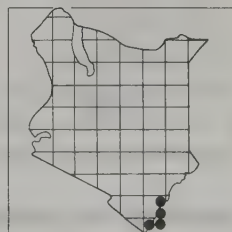
12. *Ipomoea urbaniana* (Dammer) Hall.f.

Liana to 6m. Leaves ovate to round, base rounded, apex acute or acuminate, 5.5-19 by 6-14cm, (appressed) hairy beneath. Flowers rose or purple, several together in a dense cyme; corolla 40-70mm long.

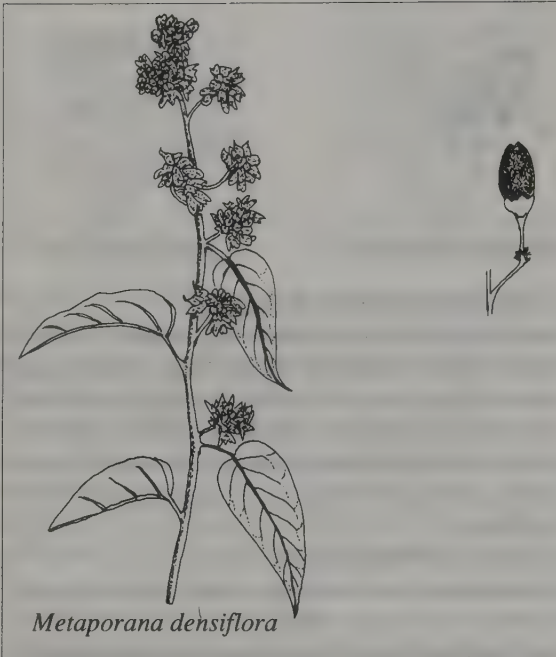
Fruit ovoid, 14mm long.

K7; 1-400m; V, IX*

Evergreen forest.



Ipomoea urbaniana



3. METAPORANA

Flowers in axillary or terminal cymes. Fruit a subglobose capsule, 4-valved and 2-4-seeded.

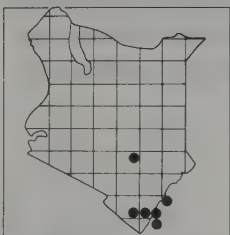
Metaporana densiflora (Hall.f.) N.E.Br.
(*Bonamia poranoides* Hall.f.)

Woody climber to at least 6m. Leaves ovate, base cordate or rounded, apex acuminate or obtuse and mucronate, 3-10 by 1.5-5.5cm, glabrous. Flowers white, in dense panicles; corolla 4-5mm long. Fruit ovoid, about 5.5 by 4.5mm.

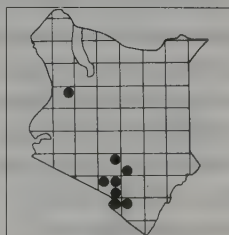
K47; 1-1200m; II, V-IX, XI-XII

Coastal bushland, dry evergreen forest, deciduous bushland.

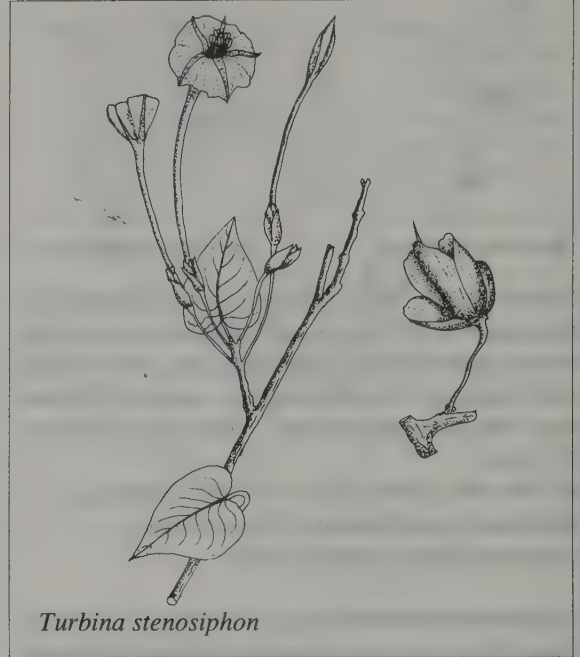
Mushandaluhera-ngulwe (GIR).



Metaporana densiflora



Turbina stenosphon



5. TURBINA

Very similar to *Ipomoea*, but with an indehiscent fruit, usually 1-seeded.

Turbina stenosphon (Hall.f.) Meeuse

Climbing shrub 2-12m. Leaves broadly ovate, base cordate, apex acute or emarginate, 3-10 by 3-9cm, glabrous to pubescent and with glandular dots. Flowers white (opening at night), on short shoots; tube 11-13cm long, limb about 2cm long. Fruit ellipsoid, 22-30 by 9-12mm, with subwoody sepals to 4 by 2cm.

K2467; 900-1250m; III-V, VII, IX*

Deciduous bushland.

252. SCROPHULARIACEAE

Leaves opposite, without stipules. Inflorescences racemose; calyx tubular, 4-5-lobed; corolla usually zygomorphic, with a tube and 5 lobes. Stamens usually 4. Fruit a capsule.

1. Leaves glandular-pubescent, 2-13mm wide

1. *Bartsia*

* Leaves glabrous, 15-50mm wide

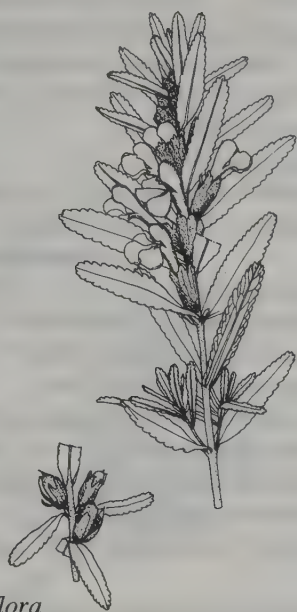
2

2. Leaves 3-lobed; corolla 4-5cm long 2. *Buttonia*

* Leaves not lobed; corolla <3cm

3. *Halleria*

For 4. STICTOCARDIA see additions, page 649

*Bartsia longiflora***1. BARTSIA**

Often glandular-pubescent. Leaves crenate. Calyx 4-lobed. Fruit septicidal. Seeds minute, winged.

1. Flowers with curved tube; anthers with minute point on lower apex **1. *B. decurva***

- * Flowers with straight tube; anthers with spine on lower apex **2. *B. longiflora***

1. *Bartsia decurva* Benth.

(*B. kilimandscharica* Engl., *B. macrocalyx* R.E. Fr.) Woody herb or shrub 0.5-1.5m. Leaves narrowly ovate or -elliptic, base obtuse to amplexicaul, apex obtuse, margins crenate, 1-3 by 0.2-1.3cm, glandular-pubescent. Flowers greenish yellow, solitary and axillary; corolla 22-30mm long, curved. Fruit 12-16 by 6-7mm.

K345; 3150-4200m; I-II, IV-V, VII-IX, XII

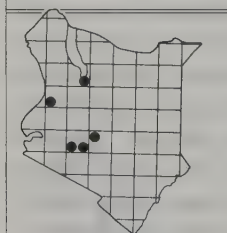
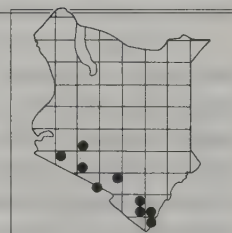
Heath zone and moorland, in rocky sites, of Mt. Elgon, Nyandarua/Aberdares & Mt. Kenya.

2. *Bartsia longiflora* Benth.

Woody herb or shrub 1-3m. Leaves as *B. decurva*. Flowers lemon yellow, solitary; corolla 22-34mm. Fruit as in *B. decurva*.

K1234; 2400-3200m; I, VII, IX-XII*

Hagenia woodland, bamboo, riverine forest.

*Buttonia natalensis**Bartsia longiflora**Buttonia natalensis***2. BUTTONIA*****Buttonia natalensis* McKen**

(*B. hildebrandtii* Engl.)

Climber to 6m. Leaves (ob-) ovate, 3-lobed, margins with a few teeth, 1.5-3.5 by 1-2.5cm, glabrous. Flowers pink or white with dark pink markings in the throat (like a foxglove), in leafy racemes; corolla 4-5cm long. Fruit hidden in the calyx.

K467; 150-1900m; II-IV, VIII, X-XII

Uncommon in rocky (succulent) bushland; rare in rocky, dry forest margins.

3. HALLERIA

Calyx 5-lobed. Corolla with 2-lipped, oblique mouth. Stamens exserted. Fruit a berry.

***Halleria lucida* L.**

Shrub or tree, occasionally a climber, 3-8 (or more?)m;

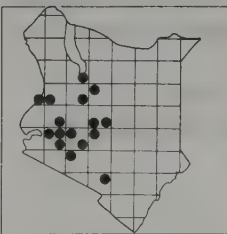


bark rough, greybrown. Leaves ovate, sometimes in threes, base cuneate to truncate, apex acuminate, margins serrate, 4-8 by 1.5-5cm, glabrous. Flowers (reddish) orange, solitary or fasciculate, sometimes on old wood; corolla curved, 21-30mm. Fruit black, ovoid with an apiculate apex, 13-17 by 12-15mm.

K123456; 1550-2750m; I-II, IV, VI-XII

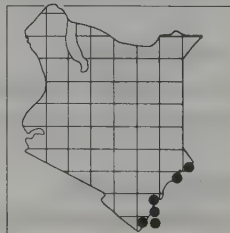
Drier forests, associated with podo, cedar and bamboo; locally common.

Kenya fuchsia (Common name), Muha, mugoro (KIK), Chorwet, Kalukiat (KIP), Olpiro (MAA), Muhera (MER), Kalochat (NDO). Used for building poles and firesticks.



Halleria lucida

Fernandoa magnifica



257. BIGNONIACEAE

Leaves opposite or in threes, imparipinnate, without stipules. Corolla 2-lipped, the upper lip with 2 lobes, the lower lip of 3 lobes; stamens 4. Fruits large.

- | | |
|--|----------------------------------|
| 1. Leaves in threes | 2 |
| * Leaves opposite | 3 |
| 2. Leaflets 7-9, sandpapery | 2. <i>Kigelia africana</i> |
| * Leaflets 9-13, velvety beneath | |
| | 4. <i>Spathodea camplanulata</i> |
| 3. Leaflets sandpapery | 2. <i>Kigelia moosa</i> |
| * Leaflets glabrous or soft-hairy | 4 |
| 4. Coastal species, below 450m | 5 |
| * Inland species, above 700m | 7 |
| 5. Flowers/fruits in pendulous panicles 20-30cm long; flowers pink | 5. <i>Stereospermum</i> |
| * Flowers/fruits in short erect inflorescences; flowers red and yellow | 6 |
| 6. Corolla 7-11cm long; calyx spathaceous | 1. <i>Fernandoa</i> |
| * Corolla 2-4.5cm long; calyx not spathaceous | |
| | 3. <i>Markhamia</i> |
| 7. Flowers 3-5cm long, pink, in pendulous panicles 20-30cm long | 5. <i>Stereospermum</i> |
| * Flowers 5-12cm long, yellow and/or red, in erect panicles to 10cm long | 8 |
| 8. Leaflets glabrous | 3. <i>Markhamia</i> |
| * Leaflets velvety beneath | 4. <i>Spathodea</i> |

NOTE: The following species may flower when leafless: 1. *Fernandoa magnifica* (flowers red, yellow at base, 7-11cm long); 5. *Stereospermum kunthianum* (flowers pink, 3-5cm long).

1. FERNANDOA

Fernandoa magnifica Seem.

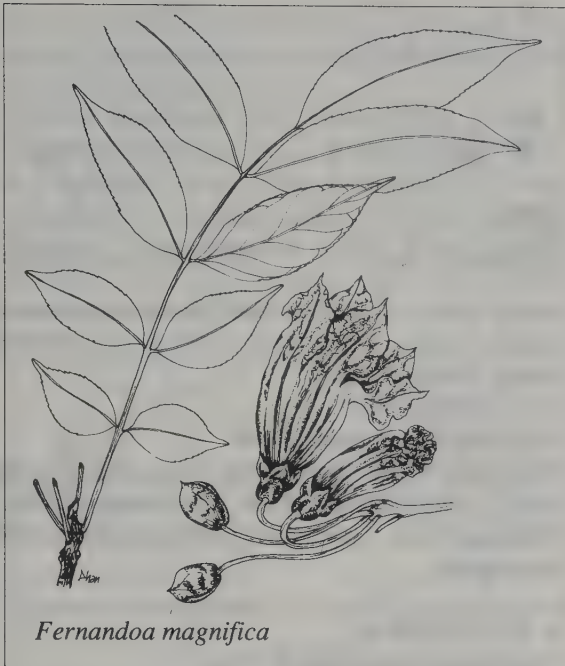
Tree 5-20m; bark pale brown, finely ridged or flaking. Sometimes flowers when leafless. Leaves with (5) 9-11 leaflets (acuminate, to 14 by 4cm, glabrous) often with unequal base. Flowers red, grading through orange to yellow at base, in few-flowered axillary cymes; corolla 7-11cm long. Fruit a twisted, cylindric capsule; seeds winged.

K7; 1-500m; I-II, X-XII (XI).

Mtsumu, Mbomba (SWA), Kurahi (BON), Mulangalanga (DIG), Munyala (GIR). The tree coppices well. The roots are used in chest medicine.

2. KIGELIA

Flowers in pendulous, lax panicles. Fruit sausage-



shaped.

1. Leaves in threes; leaflets 7-9 1. *K. africana*
 * Leaves opposite; leaflets 11-13 2. *K. moosa*



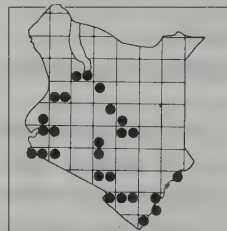
1. *Kigelia africana* (Lam.) Benth.

[*K. aethiopicum* (Fenzl) Dandy, *K. pinnata* (Jacq.) DC.] Tree 4.5-15m; bark brown, usually rough. Leaves with 7-9 leaflets, these with unequal base, entire or serrate margin, and rounded or acuminate apex; sandpapery. Flowers red, in pendulous panicles 40-120cm long; corolla 7.5-11cm long. Fruit sausage shaped, 30-90cm long.

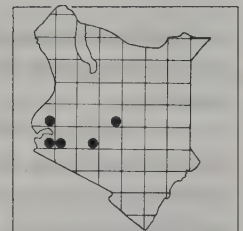
K1234567; 1-1750m; I, III-IV, VIII-X, XII (III-IV, XII)

Riverine forest/woodland, wooded grassland; less often in forest margins.

Sausage tree (STAND), Mwegea (SWA), Shelole (BON), Mobwoka (ILW), Muatine, Kiatine (KAM), Muratina (KIK, GIR), Ratuinet (KIP), Kumufungu, Morabe (LUH), Yago (LUO), Ol-sunguroi, Ol-darpoi (MAA), Rotio (MAR), Murantina (MER), Ratinuet (NAN), Bogh (ORM), Rotin (PKT), Muun (REN), Imombi (SAM), Bukorola (SOM), Mukisha (TAV), Mwaisina, Mvongnia (TAI), Edot (TUR). Baked slices of the dried fruit are used to ferment beer.



Kigelia africana



Kigelia moosa

2. *Kigelia moosa* Sprague

Tree 3-15m; bark grey. Leaves as in *K. africana*, but with 11-13 leaflets, sandpapery. Flowers orange-red, in pendulous panicles to 1.5m long. fruit more curved than in *K. africana*, and shorter.

K345; 1200-2250m; I-VI, XI*

Forest margins, riverine forest.

Kiatine (KAM), Muratina (KIK), Murave (LUH).

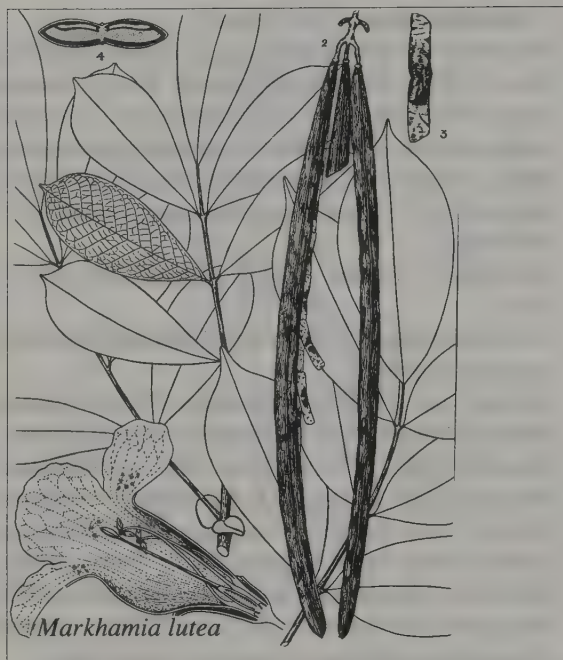
3. MARKHAMIA

Leaves opposite; often with stipule-like young leaves. Capsule linear; seeds winged.

1. Inland species; corolla 5-8cm long 1. *M. lutea*

* Coastal species; corolla 2-4.5cm long

2. *M. zanzibarica*



1. *Markhamia lutea* (Benth.) K.Schum.

[*M. hildebrandtii* (Baker) Sprague, *M. platycalyx* Sprague]

Tree 6-30m; bark reddish brown, finely fissured; bole in old trees fluted. Leaves with 7-11 leaflets, these glabrous or with small hairtufts in nerve axils, acuminate. Flowers yellow, in axillary or terminal panicles to 10cm; corolla 5-8cm long. Fruit brown, twisted, linear, 40-80cm long.

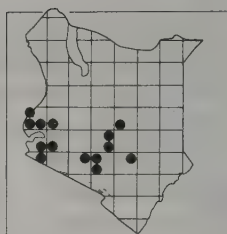
K345; 700-1900m; I, III-IV, VII-VIII, X-XI*

(Riverine) forest (remnants). Probably also planted. Moo (EMB), Kyoo (KAM), Muu, Muho, Mho (KIK), Siala (LUO), Shisimbali, Lusiola (LUH), Mungwani, Mogu (MER), Mobet (NAN). Wood hard, tough, somewhat termite-resistant. Coppices extremely well, and is the preferred tree for farm-planting in areas like Siaya; used for poles, implements, and building.

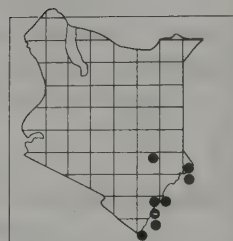
Note: *M. obtusifolia* has been reported from "Nyanza Province" (Joy Bally 6168). I have not seen the specimen; the species can be distinguished by the leaves which are tomentose beneath.

2. *Markhamia zanzibarica* (DC.) Engl.

Shrub or tree 2.5-7.5m; bark greybrown, smooth or flaking. Leaves with 5-9 leaflets, these glabrous, acuminate. Flowers yellow with red spots and red or



Markhamia lutea



Markhamia zanzibarica

purple petals, in axillary and terminal panicles to 12cm; corolla 2-4.5cm long. Fruit brown, twisted, linear, 30-45cm long.

K7; 1-400m; II-XI*

Dry forest and secondary bush.

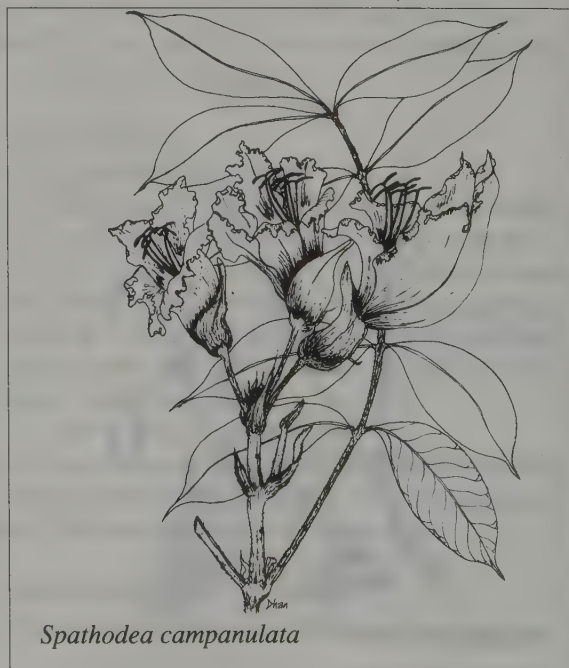
Mtawanda (SWA), Mchawanda (BAJ), Mpalawanda (DIG), Muchamdala (GIR), Mchaanda (ILW), Mukenga (TAI). Used to make bows and arrows and toolhandles.

4. SPATHODEA

***Spathodea campanulata* P. Beauv.**

(*S. nilotica* Seem.)

Tree 6-30m; bark pale grey, smooth or scaling near base of trunk. Leaves opposite or in threes; leaflets 9-13, acuminate, discolorous: yellow-green velvety beneath. Flowers red with yellow margin and throat,



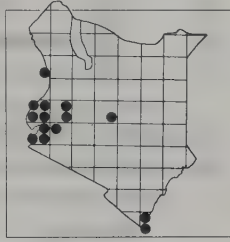
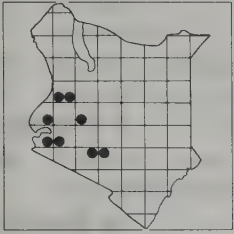
Spathodea campanulata

in dense terminal racemes; corolla 8-12cm long. Fruit purple-black, an oblong woody capsule 15-25 by 4 by 1cm long. Seeds winged.

K345; 1500-2000m; II-III, VIII-IX, XII*

(Riverine) forest (margins). Widely planted.

Nandi Flame, Flame of the forest (STAND), Sebetaiyet (KIP, NAN), Mutsurio, Mutsulia (LUH), Madungungu, Nyawend-agata (LUO), Repko (PKM). Wood soft and light. Pokomo use a bark infusion against liver complaints.

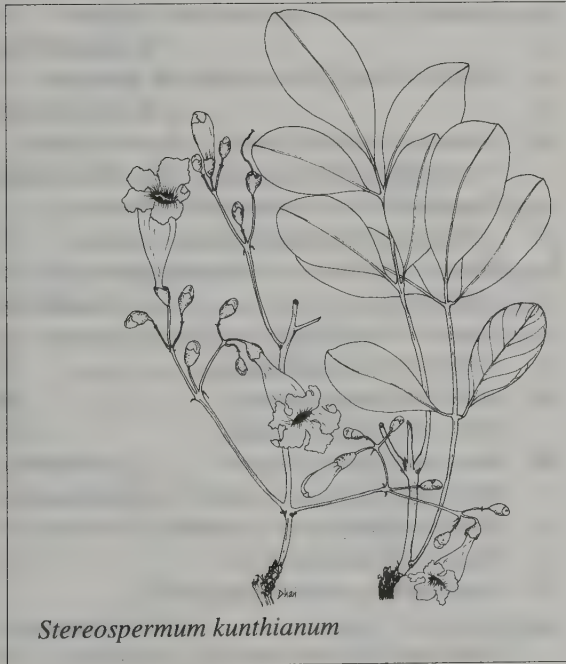


Spathodea campanulata *Stereospermum kunthianum*

5. STEREOSPERMUM

Stereospermum kunthianum Cham.

Tree 4.5-9m; bark grey, smooth or scaling. Flowers when (almost) leafless. Leaves opposite, with 7-9 leaflets, these elliptic, 4-13 by 2-5cm, glabrous or



Stereospermum kunthianum

densely pubescent (larger and crenate in saplings). Flowers pink, in panicles 20-30cm long; corolla velvety, 3-5cm long. Fruit linear, twisted, 30-60cm long; seeds winged.

K23457; 1-300m (coast) and 900-2100m; II-III, VII, X-XII.

Rocky bushland, wooded grassland; on the coast also in forest (margins) and secondary bush.

Mti-sumu (SWA), Ndondu, Mwagaivu (DIG), Mahorlu (LUH), Pololok, Nyariango (LUO), Nyakabur (TUR).

258. PEDALIACEAE

Herbs or rarely shrubs or small trees, covered (at least the young parts) with glands, becoming slimy when wet. Leaves opposite or the upper ones alternate, exstipulate. Flowers irregular, gamopetalous; stamens 4, didynamous.

1. SESAMOTHAMNUS

Spiny shrubs or small trees; trunks usually swollen near base; leafless at flowering time. Leaves fasciculate. Flowers in few-flowered racemes. Corolla-tube long, spurred at base. Fruit a woody capsule, oblong, compressed, glabrous and glandular. Seeds numerous, flattened, winged.

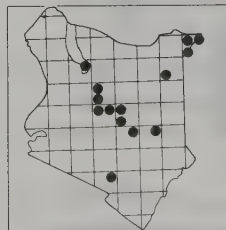
1. Leaves glabrous; corolla lobes entire 2. *S. rivae*

* Leaves pubescent; corolla lobes fringed

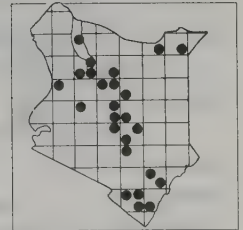
1. *S. busseanus*

1. *Sesamothamnus busseanus* Engl.

Shrub or small tree, 1-7m, bark dark coppery-green, peeling; branches pubescent, spiny; spines straight or slightly recurved, 0.5-1.5cm. Leaves obovate, base cuneate, apex rounded or emarginate, 0.8-3 by 0.6-1.5cm, densely glandular below, pubescent below and sometimes above. Flowers scented, white, sometimes with a red tube; tube 3-5cm, spur 4-7cm, lobes 1.5-2 by 1.6-2cm, acuminate. Fruit brown, slightly obovoid



Sesamothamnus busseanus



S. rivae

and flattened, 3.5-5 by 1.6-2cm, acuminate.

K147; 300-1250m; V, VII, XII*

(*Acacia* -) *Commiphora* bushland or bushed grassland on shallow rocky soils.

Lalaftu, Lafatu (BOR), Kalamba (KAM), Lilu (ORM), Salel-maah, Lanjid (SOM). Pulverized parts are used to make a paste to stop bleeding.

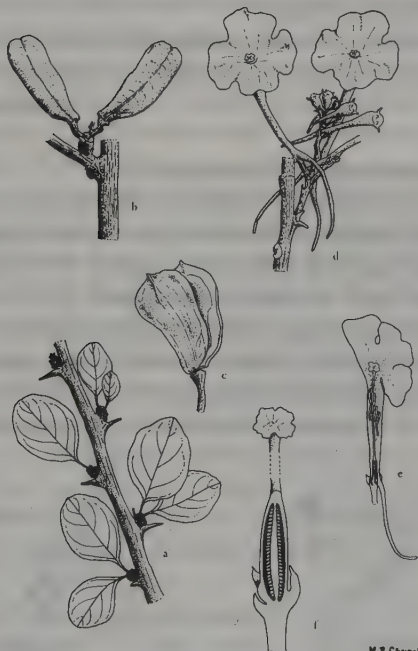
2. *Sesamothamnus rivae* Engl.

Shrub or small tree, 1-6m, bark smooth, grey. Branches arching, sparsely spiny; spines straight or slightly recurved, 0.5-1cm. Leaves obovate, base cuneate, apex rounded or emarginate, 2-10 x 1.3-6cm, glandular, glabrous. Flowers scented, white, sometimes tube and spur red; corolla tube 5-7cm, spur 3-6cm, lobes 1-2 by 1.5-3cm with entire margins. Fruit brown, slightly obovate, apex emarginate or apiculate, 3-6.5 by 2-2.5cm.

K12347; 150-1000m; III-V, VIII-XI.

Acacia-Commiphora bushland or *Acacia/Duosperma* bushland; often in rocky sites.

Lalaftu, Lafatu (BOR), Khorogoula (REN), Salelma, Salalma (SOM), Orombo (TAI), Loborea (TUR).



Sesamothamnus rivae Engl.

a: branchlet (x 1/2). b: fruiting branchlet (x 1/2). c: fruit (x 1/2). d: flowering branchlet (x 1/2). e: L.S. flower (x 1/2). f: L.S. gynoecium (x 2).
a: from Glover & Gilliland 251; b: from Bally 7738; c: from Gillett 4179; d-f: from Adamson in Bally 4304.

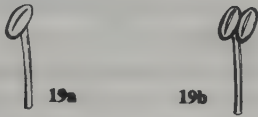
259. ACANTHACEAE

Mostly herbs, but occasionally woody herbs or shrubs. Leaves opposite, exstipulate. Flowers zygomorphic, with 4-5 sepals; corolla with a tube and 5 lobes, occasionally arranged in 2 lips; stamens 2-4, often at different levels. Fruit usually a 2-valved capsule, each half with one or two seeds; unless otherwise indicated, fusiform.

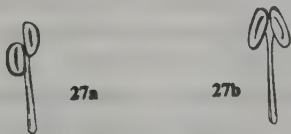


- | | |
|--|------------------------------|
| 1. Leaves with spiny margins | 2. <i>Acanthus</i> |
| * Leaf margins not spiny | 2 |
| 2. Spines present at branch nodes, more than 3mm long | 6. <i>Barleria</i> |
| * Spines absent or less than 2mm long | 3 |
| 3. Leaf margin crenate, serrate or toothed | 4 |
| * Leaf margin entire | 7 |
| 4. Leaf margin with a single broad tooth | 22. <i>Thunbergia kirkii</i> |
| * Leaf margins with many indentations | 5 |
| 5. Leaf base rounded or subcordate | 14. <i>Mimulopsis</i> |
| * Leaf base cuneate | 6 |
| 6. Corolla 2-lipped; fruit fusiform, 2-seeded | 8. <i>Duosperma</i> |
| * Corolla 5-lobed; fruit cylindrical, 4-seeded | 9. <i>Dyschoriste</i> |
| 7. Flowers or fruits axillary, 1 or 2, with 2 large opposite bracteoles at base | 22. <i>Thunbergia</i> |
| * Flowers or fruits several per inflorescence or without paired large bracteoles at base | 8 |
| 8. Flowers or fruits in lax terminal panicles 10-30cm long | 5. <i>Asystasia</i> |
| * Flowers or fruits either axillary or in dense inflorescence or solitary | 9 |
| 9. Bracts and sepals spiny | 10 |
| * Bracts and sepals not spiny | 11 |
| 10. Bracts and sepals 2-topped | 6. <i>Barleria</i> |
| * Bracts and sepals acute-spiny | 12. <i>Lepidagathis</i> |
| 11. Flowers solitary or in 2, axillary or terminal | 12 |
| * Flowers in inflorescences | 15 |
| 12. Calyx tubular, inflated, 5-toothed | |
| | 19. <i>Satanocrater</i> |
| * Calyx free for more than half, not inflated | 13 |

13. Corolla 2-lipped; seeds glabrous 4. *Anisotes*
 * Corolla 5-lobed; seeds hairy, at least on margins 14
 14. Stamens 2; seeds hairy all over; fruit 8-13mm long 6. *Barleria*
 * Stamens 4, seeds hairy on margin; fruit 17-21mm long 16. *Ruellia*
 15. Plant in flower 16
 * Plant in fruit 31
 16. Corolla 5-lobed or only obscurely bilabiate 17
 * Corolla 2-lipped, or 1-lipped 22
 17. Stamens 2 18
 * Stamens 4 20
 18. Flowers in spikes or spike-like panicles 19
 * Flowers in few-flowered congested heads 6. *Barleria*
 19. Anthers 1-celled 17. *Ruspolia*

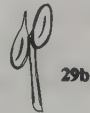


- * Anthers 2-celled 15. *Pseuderanthemum*
 20. Forest species; leaves large, to 30cm long 21
 * Dry bushland/wooded grassland species; leaves up to 6.5cm long 22
 21. Corolla 1.5-3.5cm long 1. *Acanthopale*
 * Corolla 6.5-8.6cm long 23. *Whitfieldia*
 22. Stamens 2 23
 * Stamens 4 30
 23. Flowers red 24
 * Flowers white, yellow, lilac or mauve 26
 24. Forest species; leaves 14-22cm long 13. *Macrorungia*
 * Dry area species; leaves to 10cm long 25
 25. Leaves glabrous 18. *Ruttya*
 * Leaves tomentose (NE Kenya only) 4. *Anisotes*
 26. Corolla more than 3.5cm long 4. *Anisotes*
 * Corolla less than 3cm long 27
 27. Anther cells at different heights 28

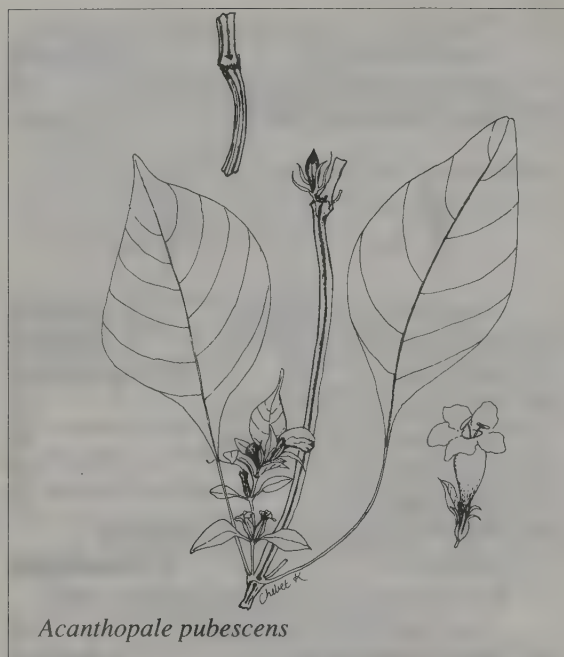


- * Anther cells at the same height 10. *Ecbolium*

28. Flowers between opposite, paired bracts; only near Olorgesailie 7. *Dicliptera*
 * Flowers not between opposite bracts 29
 29. Lower anther-sac tailed 11. *Justicia*



- * Lower anther-sac apiculate 3. *Adhatoda*
 30. Bracts less than 2mm wide 21. *Styasasia*
 * Bracts large 20. *Sclerochiton*
 31. Fruits less than 15mm long 32
 * Fruits more than 16mm long 39
 32. Seeds hairy 33
 * Seeds glabrous 35
 33. Moist forest species; fruits in bracteate racemes 1. *Acanthopale*
 * Dry area species; or, in forest species, with few-fruited terminal cymes 34
 34. Sepals toothed or spiny 6. *Barleria*
 * Sepals neither toothed nor spiny 9. *Dyschoriste*
 35. Placenta elastically rising, pushing seeds out of fruit; Olorgesailie 7. *Dicliptera*
 * Placenta not rising 36
 36. Seeds 2 per fruit 37
 * Seeds 4 per fruit 38
 37. Bushland species; leaves less than 3cm wide 10. *Ecbolium*
 * Forest or woodland species; leaves larger 20. *Sclerochiton*
 38. One sepal larger than others 20. *Sclerochiton*
 * Sepals equal 11. *Justicia*
 39. Inflorescence a raceme 40
 * Inflorescence a clustered cyme 44
 40. Bracts narrow (< 2mm wide) 41
 * Bracts ovate (> 4mm wide) 43
 41. Seeds smooth 17. *Ruspolia*
 * Seeds rough 42
 42. Dry bushland species 5. *Asystasia*
 * Forest or woodland species 15. *Pseuderanthemum*, 21. *Styasasia*
 43. Coastal species, or inland species with long-attenuate leaf base 3. *Adhatoda*
 * Inland species with cuneate leaf base 13. *Macrorungia*
 44. Seeds smooth 18. *Ruttya*
 * Seeds rough 4. *Anisotes*



1. ACANTHOPALE

Corolla with 5 lobes, hardly 2-lipped; stamens 4. Fruit 4-seeded.

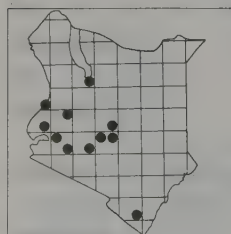
Acanthopale pubescens (Engl.) C.B.Cl.

(Woody) herb or shrub 0.3-5m. Leaves elliptic, base attenuate, apex acuminate, 3-25 by 1.5-7.5cm, sparsely pubescent to almost glabrous. Flowers white with pink markings, in small axillary and terminal racemes; corolla tube (10) 14-25mm, widening towards the mouth; lobes 5-10mm long. Fruit 12-15mm long.

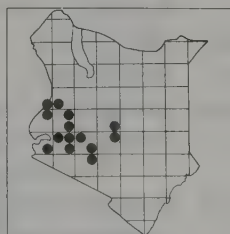
K134567; 1550-2700m; I, VI-XI (VIII)

Moist forest undergrowth; locally common.

Chemocheet (KIP).



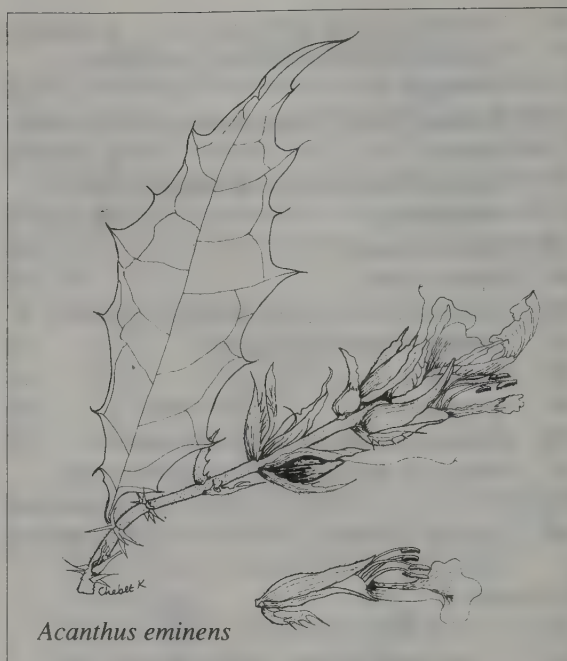
Acanthopale pubescens



Acanthus eminens

2. ACANTHUS

Woody herbs or shrubs with spines at the nodes and at



leaf margins. Flowers in spikes with large bracts.

1. Leaves glabrous

1. *A. eminens*

* Leaves sandpapery above, hairy beneath

2. *A. pubescens*

1. *Acanthus eminens* C.B.Cl.

Woody herb or shrub 1-5m. Leaves oblong, pinnatifid or lobate, with spiny margins, 15-40 by 5-17cm, glabrous; spines also present at base of petiole. Flowers blue to purple, in dense spikes 8-35cm long; corolla 3-6cm long. Fruit to 18mm long.

K23456; 1500-2650m; I-III, V-VIII, X-XII (XI-XII)

Moist or dry forest, also among bamboo; locally common.

Kitamani (KIK), Ol-digeldi (MAA), Tegilde (MAR), Tegeldet (NAN, KIP), Tikeltit (OKI), Tekandet (SEB).

2. *Acanthus pubescens* (Oliv.) Engl.

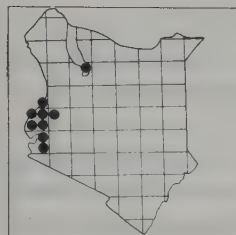
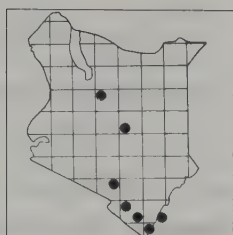
(*A. arboreus* Forssk.)

Very similar to *A. eminens*. Flowers white or pinkish mauve, similar to *A. eminens*; inflorescence hairy.

K135; 1250-2150m; I, IV-XII (XII)

Forest clearings, bushed or wooded grassland.

Ekiira (ATE), Lirakalu, Marakalu (LUH), Otagalo, Otako (LUO), Tegeldet, Tegelitit (NAN), Tegendet (OKI), Ildigilde (SAM).

*Acanthus pubescens**Adhatoda englerana***3. ADHATODA**

no illustration

Woody herbs. Flowers with 2-lipped corolla; stamens 2. Fruit 4-seeded.

1. Bracts green throughout; leaves 12-45cm long

1. *A. englerana*

- * Bracts with white edge; leaves 6-13cm long

2. *A. schimperana*

1. *Adhatoda englerana* (Lind.) C.B.Cl.

Woody herb 1.5-4m. Leaves elliptic, base attenuate right to the stem, apex acuminate, 12-45 by 4-18cm, glabrous or sparsely hairy. Flowers white or greenish cream, in dense bracteate spikes 10-50cm long; corolla 18-24mm long. Fruit greenish brown to 2-3cm long.

K147; 50-1400m; I-II, V-VI, VIII-IX, XII *

Groundwater or riverine forest, on the coast also in moist forest.

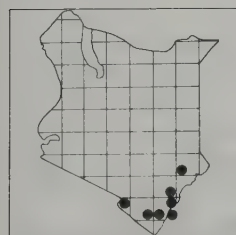
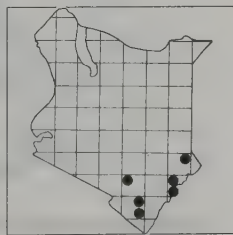
Fiehu (REN).

2. *Adhatoda schimperana* Nees

Woody herb 0.5-2m. Leaves rather narrowly elliptic, base cuneate or attenuate, apex obtuse, 6-13 by 1.5-5cm, glabrous. Flowers white with purple markings inside, in dense bracteate spikes 4-16cm long; corolla 16-25mm long. Fruit 20-22mm long.

K7; 1-850m; V-VI, IX, XI-XII *

Bushland (dry and also coastal), riverine woodland, bushed grassland.

*Adhatoda schimperana**Anisotes dumosus***4. ANISOTES**

Shrubs. Flowers in axillary clusters or solitary; corolla cylindrical, long and narrow, 2-lipped; upper lip arching; lower lip 3-lobed. Stamens 2. Fruit an obovoid capsule; seeds 2 or 4.

1. Flowers solitary or paired 3. *A. parvifolius*
* Flowers several per inflorescence 2

2. Inflorescence at base with two large opposite bracts 3

- * Inflorescence without obvious clasping bracts 4

3. Inflorescence pedunculate; leaves tomentose

2. *A. involucratus*

- * Inflorescence sessile; leaves sparsely puberulous 4. *A. tanensis*

4. Bracts 1.5-3mm long, calyx 4-5mm long

1. *A. dumosus*

- * Bracts 4-8mm long, calyx 7-9mm long

5. *A. ukambensis*

1. *Anisotes dumosus* Milne-Redh.

ssp. *galanae* C. Baden

Shrub 1.8-3.6m, often flowering when leafless. Leaves narrowly elliptic, base cuneate, apex obtuse or acute, up to 9 by 3cm, glabrous. Flowers (greenish) yellow or mauve-pink, in sessile axillary clusters; corolla 37-46mm long. Fruit 25-30 by 5-7mm.

K147; 1-500m; IV, VII-X *

Dry (riverine) bushland.

2. *Anisotes involucratus* Fiori

Shrub 0.6-3m. Leaves (ob)ovate, base attenuate, apex obtuse, 2-4 by 0.8-2cm, densely tomentose. Flowers orange to red, in pedunculate clusters subtended by 2 large bracts; corolla 33-37mm long. Fruit 25-26 by 4-8mm.

K1; once collected at Lagh Olla (W. of Ramu) at 580m; I *

Dry *Acacia-Commiphora* bushland.

3. *Anisotes parvifolius* Oliv.

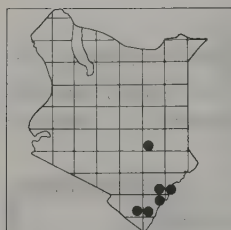
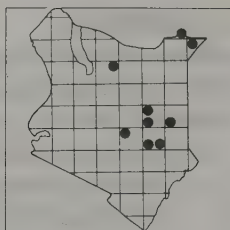
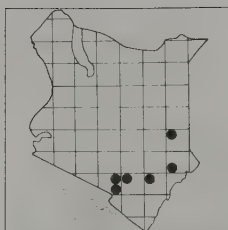
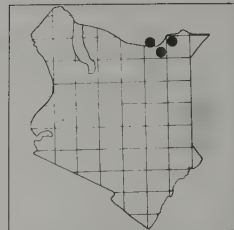
Map next page

Shrub 1-3m. Leaves obovate or elliptic, base attenuate, apex acute or obtuse, 3-6 by 1.2-5cm, glabrous or nearly so. Flowers brick red, yellow near base, solitary and axillary; corolla 40-60mm long. Fruit 26-30 by 6-8mm.

K47; 1-800m; I, III-VII, IX, XI *

Dry bushland or bushed grassland.

Tutu (BOR), Meredis (SOM).

*Anisotes parvifolius**Anisotes tanensis**Anisotes ukambensis**Asystasia drake-brockmannii***4. *Anisotes tanensis* C. Baden**

Shrub 1-5m. Leaves ovate, base cuneate, apex obtuse, 3-7 by 2-4cm, (sparsely) puberulous. Flowers brick red, yellow near base, in 2-flowered sessile axillary inflorescences, subtended by 2 large bracts; corolla 45-55mm long. Fruit 28-34 by 5-8mm.

K147; 250-600m; I, V-VII, XI *

Acacia-Commiphora bushland or riverine thicket, on alluvial or limestone soils. May be locally common. Cate (BON), Tutu (BOR), Tira (ORM), Meredis (SOM).

5. *Anisotes ukambensis* Lindau

Shrub or small tree 2-5m. Leaves narrowly elliptic, base attenuate, apex acute or acuminate, 7-12 by 2-4cm, glabrous or with puberulous nerves. Flowers (greenish) yellow, in pedunculate axillary clusters;

corolla 45-52mm long. Fruit 25-30 by 4-7mm.

K147; 1-1200m; VII-X *

Deciduous bushland, semi-evergreen woodland, bushed grassland.

Mukea (KAM), Tutatu (ORM), Mkipende (PKM).

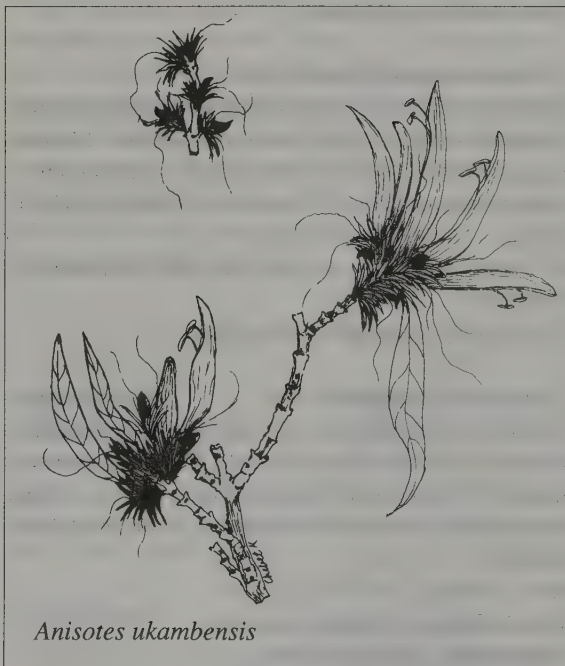
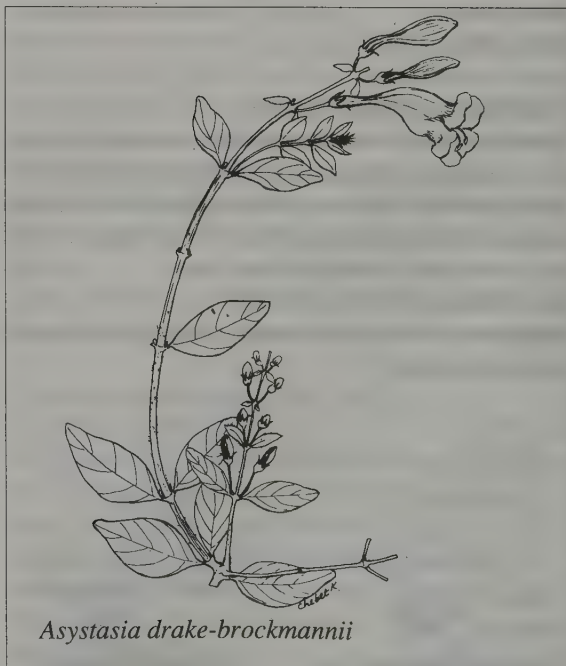
Used to make fish traps by the Pokomo.

5. ASYSTASIA

Corolla funnel-shaped, with 5 almost equal lobes; stamens 4. Fruit with 4 seeds.

***Asystasia drake-brockmannii* Turrill**

Woody herb or shrub, 1-3m, often somewhat scandent. Leaves elliptic, base cuneate, apex obtuse, 3-5.5 by 2-4cm, sparsely puberulous. Flowers white or pale blue with darker markings, in axillary and terminal racemes 4-10cm long; corolla tube 25-40mm, lobes

*Anisotes ukambensis**Asystasia drake-brockmannii*

12-15mm long. Fruit 37-38 by 5-9mm.

K1; 800-1300m; V-VI, XII *

Acacia-Commiphora bushland or sparse woodland.

6. BARLERIA

Often spiny herbs or shrubs. Flowers solitary and axillary, or in axillary cymes; corolla tube cylindrical below, wider near mouth; lobes 5 and in one plane, or 1 lobe much lower on tube. Stamens 2. Fruit 2- or 4-seeded.

- | | |
|---|-------------------------|
| 1. Plant spiny at nodes | 2 |
| * Plant not spiny | 6 |
| 2. Spines recurved; near the sea | 3. <i>B. setigera</i> |
| * Spines straight | 3 |
| 3. Flowers white or blue; stem and leaves hairy | 4 |
| * Flowers yellow or orange; stems and leaves (almost) glabrous | 5 |
| 4. Sepals with toothed margins; spines to 2cm; corolla lobes in one plane | 2. <i>B. ramulosa</i> |
| * Sepals with entire margins; spines to 4cm; one corolla lobe lower than others | 8. <i>B. sp. D</i> |
| 5. Bracts 5-fid | 7. <i>B. sp. A</i> |
| * Bracts entire | 1. <i>B. prionitis</i> |
| 6. Leaves stellate-hairy; alt. 350-1050m | 4. <i>B. taitensis</i> |
| * Leaves with simple hairs; alt. (900)1200-2700m | 7 |
| 7. Outer sepals 10mm long; corolla lobes 6-11mm long | 5. <i>B. ventricosa</i> |
| * Outer sepals 12mm long; corolla lobes 14-20mm long | 6. <i>B. volkensii</i> |

1. *Barleria prionitis* L.

(Scandent) shrub 1.5-2(+?)m; 2-4 spines at base of each petiole. Leaves elliptic or slightly obovate, base cuneate, apex spiny, 1.5-6 by 0.5-3cm, glabrous to scabrid on the nerves. Flowers yellow or orange, solitary and axillary but seemingly grouped; corolla tube 24-38mm, lobes 9-20mm long. Fruit hidden in

spiny calyx, to 16mm long.

K7; 1-950m; I-II, V, VIII *

Bushland.

NOTE: *Barleria proxima* Lindau is very similar but does not seem to reach 1.5 m.

2. *Barleria ramulosa* C.B.Cl.

Woody herb or shrub 0.4-2m; one pair of spines to 1.8cm at each node. Leaves obovate or elliptic, base cuneate, apex rounded with a spiny mucro, 0.8-2.3 by 0.6-1.5cm, pubescent beneath. Flowers white to blue, axillary and solitary; corolla tube 10-25mm, lobes 7-14mm long. Fruits hidden in the spiny-margined calyx, 8-10 by 3-5mm.

K1467; 1-1800m; I-II, IV-IX, XI

(Rocky) bushland, often in seasonally wet sites.

3. *Barleria setigera* Rendle

Shrub, often scandent or scrambling, 0.3-3m; two pairs of recurved spines (to 6mm) at most nodes. Leaves elliptic, base cuneate, apex rounded with spiny mucro, 2-9 by 1-4cm, with some hairs on the nerves and many cistoliths. Flowers orange or orange-yellow, axillary and solitary, with spiny bracts and calyx; corolla tube 27-34mm, lobes 13-21mm long. Fruit 15-18 by 5-7mm.

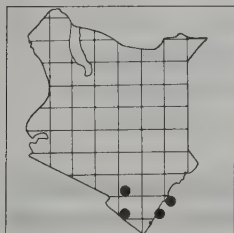
K7; 1-20m; I, III-IV, VIII-XI.

Dune thickets or bushland close to the sea.

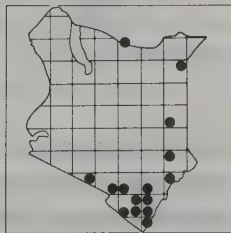
Kifuma nguo (SWA). In the Kilifi area used against wasting sickness in goats.

4. *Barleria taitensis* S.Moore

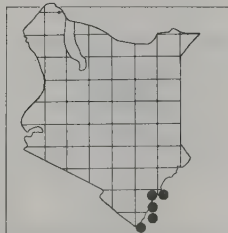
Shrub 0.4-2m. Leaves elliptic or slightly ovate, base cuneate, apex acute or obtuse, 1.5-8 by 0.6-3cm, densely stellate-hairy. Flowers white or blue (pale blue in open sites, dark blue in shaded sites), in condensed terminal spikes to 11cm long with two-topped spiny-tipped bracts; corolla tube 18-34mm, lobes 15-24mm long. Fruit hidden between bracts.



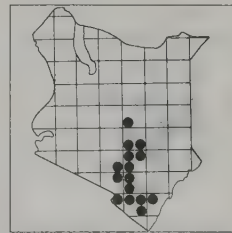
Barleria prionitis



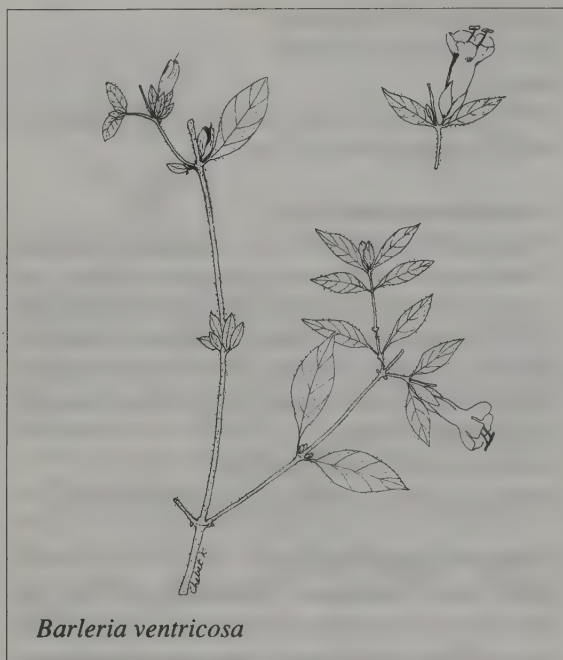
Barleria ramulosa



Barleria setigera



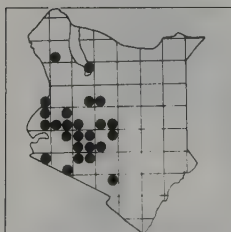
Barleria taitensis



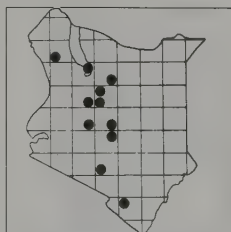
K47; 350-1050m; I-VI, VIII-X, XII (V-VI, VIII)
Dry bushland/woodland, *Acacia-Commiphora* bushland; may be the dominant undershrub in *Combretum-Commiphora* woodland.
Musai (KAM).

5. *Barleria ventricosa* Nees

Scrambling herb or shrub 0.6-4m. Leaves elliptic or slightly ovate, base cuneate, apex acute or acuminate, 1.5-9 by 0.7-4cm, densely pubescent beneath. Flowers blue, in small axillary cymes or (mostly) in congested terminal heads; corolla tube wide, 15-25mm, lobes 6-11mm long. Fruit 9-13 by 3-6mm.
K123456; (900) 1500-2700m; I-III, V-XII (I, XII)
Moist and dry forest (margins) or secondary bushland; may be common.
Muthugia (KIK), Turukwot (KIP), Olosida (MAA).



Barleria ventricosa



Barleria volkensii

6. *Barleria volkensii* Lindau

Woody herb or scandent shrub 0.7-2m. Leaves elliptic or ovate, base cuneate, apex acute or acuminate, 2-9 by 1-5cm, pubescent beneath. Flowers white or blue, in few-flowered axillary or terminal inflorescences; corolla with large toothed outer sepals, tube 23-35mm, lobes 14-20mm long. Fruit 12-13 by 3-6mm.

K1247; 1200-2250m; I-II, V-X, XII (VI)

Forest (margins), less often shaded localities in dense woodland or thicket. May be locally common in the northern (drier) forests.

7. *Barleria* sp. A of UKWF: Bogdan 400

Shrub 0.5-3m. Spines small, 4-fid at each node. Leaves elliptic, base cuneate, apex a small spine, 2-8 by 1-3cm, glabrous. Flowers (orange-) yellow, in condensed terminal heads with narrow spiny bracts and outer sepals; corolla tube 20-27mm, lobes 10-17mm long. Fruit 12-14 by 2-5mm.

K1467; 250-1050m; I-II, V-VI, XII

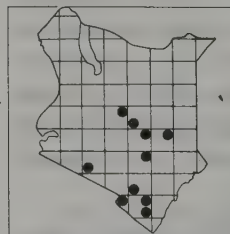
(Rocky) *Acacia-Commiphora* bushland or bushland/woodland.

8. *Barleria* sp. D (=Newbould 6906)

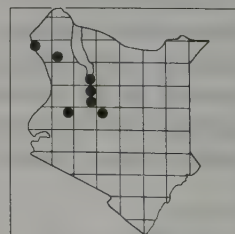
Shrub 0.4-2m. Spines to 4cm, 4-fid at each node. Leaves elliptic or slightly ovate, base cuneate, apex a small spine, 1-4 by 0.5-2cm, (densely) puberulous. Flowers white, in condensed terminal heads, the ovate bracts ending in a spine; corolla tube 24-28mm, lobes 12-22mm long. Fruit 10-11 by 3mm (1 seen).

K123; 750-1400m; I-II, VI, VIII-X, XII *

Dry *Acacia* bushland or woodland, often on lava.
Akelkelyan (PKT).



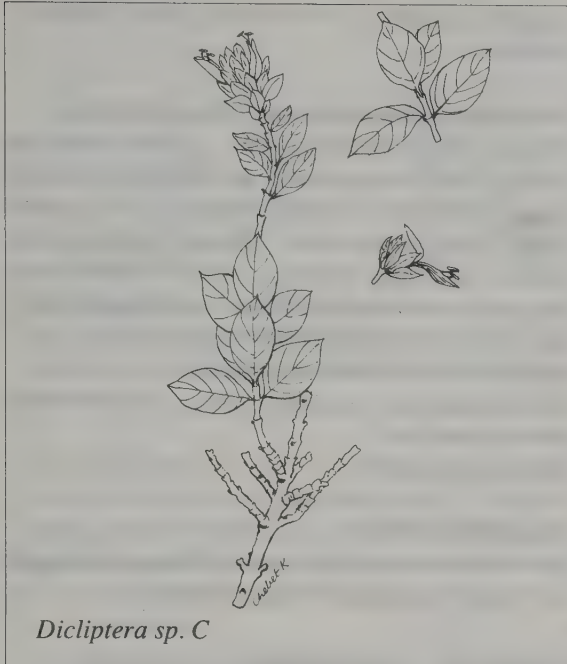
Barleria sp. A



Barleria sp. D

7. DICLIPTERA

Herbs or shrubs. Flowers in bracteate axillary umbels, corolla 2-lipped, upper lip reflexed and lower lip spreading, stamens 2.

*Dicliptera* sp. C***Dicliptera* sp. C** of UKWF: Agnew 7001

Woody herb or shrub 0.5-2m. Leaves ovate or elliptic, base cuneate, apex acute, 1-3 by 0.7-2.5cm, densely puberulous. Flowers white, with (pale) red or purple spots on lower lip, in congested subterminal heads; corolla tube 8-10mm, lobes 11-14mm long. Fruit 9-11 by 2-5mm.

K6; 950-1000m; I, VIII, XII *

Only known from *Acacia-Commiphora* bushland near Ologesailie.

8. DUOSPERMA

Flowers in condensed axillary cymes. Corolla 2-lipped; stamens 4. Fruit 2-seeded.

1. Leaves with star hairs amongst the normal hairs 2

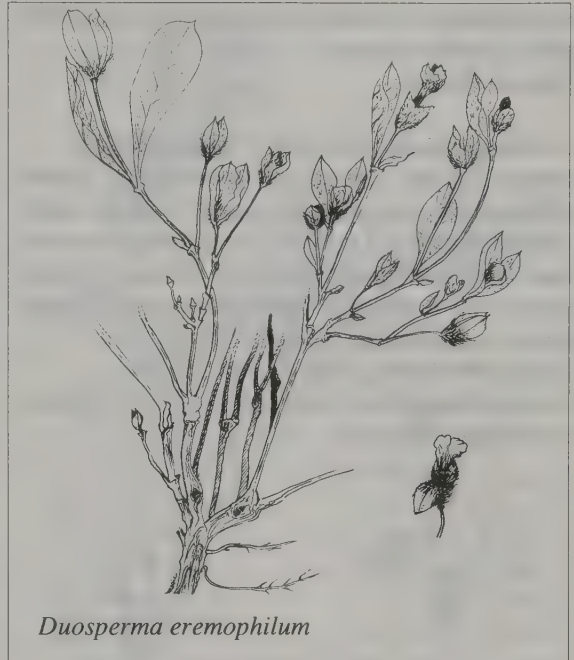
* Leaves without star hairs

2. *D. kilimandscharica*

2. Flowers less than 2cm long (of which the lobes less than 7mm) **1. *D. eremophilum***

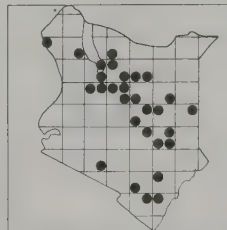
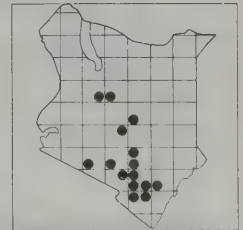
* Flowers more than 2cm long (of which the lobes more than 13mm) **3. *D. sp. A***

1. *Duosperma eremophilum* (Milne-Redh.) Brummitt
Shrub 0.15-1.5m. Leaves obovate to almost circular, base cuneate, apex rounded or truncate, margin ser-

*Duosperma eremophilum*

rate, 0.5-4 by 0.3-3cm, pubescent with many stellate hairs intermixed. Flowers white or yellowish with a few purple spots, in dense axillary groups; corolla tube 7-13mm, lobes 2.5-6mm long. Fruit 5-8 by 2-3cm. K12467; 100-1350 (1750)m; I-IX, XI-XII (V-VI)
Dwarf semi-desert bushland (often dominant), arid bushed grassland, open *Acacia* bushland, along lug-gas or in silt/clay pans; may be common to absolutely dominant, especially on gravelly soils in the north. Sarim (BOR), Saarima (GAB), Sapani (SAM), Sarin (SOM), Emerkwi (TUR).

2. *Duosperma kilimandscharica* (Lindau) Dayton
Shrub 0.7-3m. Leaves very similar to *D. eremophilum*, but to 8 by 5cm and glabrous to pubescent without star hairs. Corolla and fruit very similar. K1467; 250-2100m; II-IX, XI-XII (V-VI).

*Duosperma eremophilum**D. kilimandscharica*

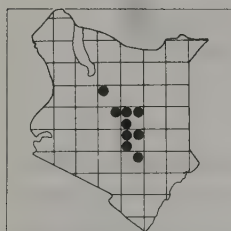
Dry bushland or bushed grassland, often on alluvial soils. Locally common.
Mududi (KAM).

3. *Duosperma* sp. A of UKWF: Trapnell 2408

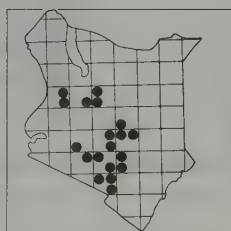
Shrub 0.25-2m, with almost square stems. Leaves elliptic, base cuneate, apex acute, margins serrate (rarely subentire), 1.5-6 by 1-3cm, sparsely (rough-) hairy with intermixed star-hairs. Flowers white or mauve, few in axillary cymes; corolla tube 8-28mm, lobes 14-20mm long. Fruit 8-12 by 2-3mm.

K147; 250-1050m; I, III-VI, VIII-IX, XII

Acacia-Commiphora bushland, *Acacia* or *Combretum* wooded grassland.



Duosperma sp. A



Dyschoriste thunbergiiflora

9. DYSCHORISTE

Calyx tubular for half its length. Corolla lobes 5,

subequal. Stamens 4. Fruit more or less cylindrical, 4-seeded.

***Dyschoriste thunbergiiflora* (S.Moore) Lindau**

Woody herb or shrub 0.6-3m. Leaves elliptic or slightly ovate, base cuneate, apex rounded to acute, margin subentire or slightly crenate, 0.7-6.5 by 0.4-2.5cm, sparsely pubescent. Flowers white or pale mauve, with darker markings, in few-flowered axillary cymes; corolla tube 26-50mm, widening halfway; lobes 9-20mm long. Fruit 12-14 x 2.5-3mm.

K123467; 250-1950m; I-IX, XII (V)

Dry bushland or woodland, also in (*Combretum*) wooded grassland.

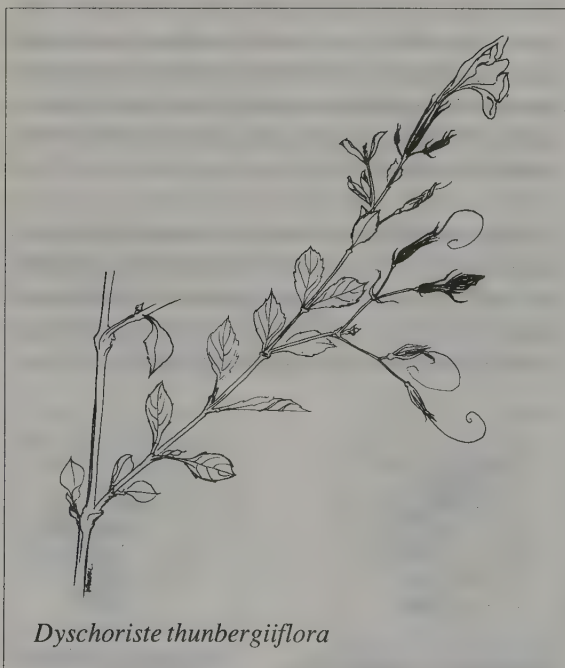
Mushugushugu (KIK).

10. ECBOLIUM

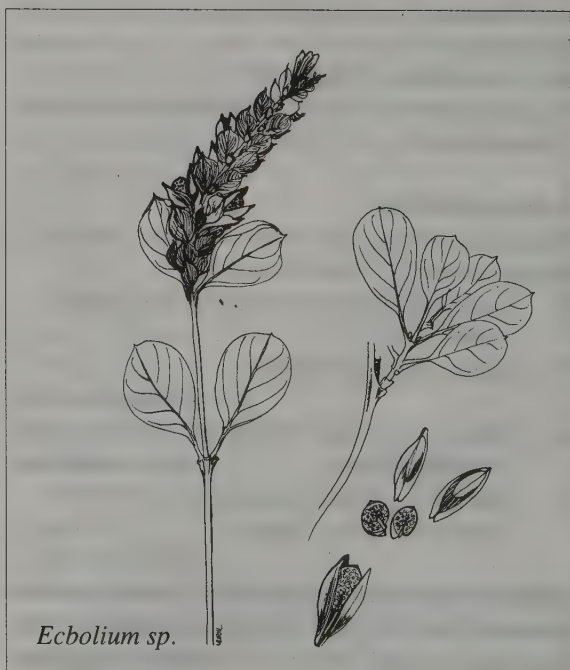
Flowers in bracteate spikes; corolla 2-lipped, the lower lip 3-lobed. Stamens 2. Fruit 2-seeded.

***Ecbolium* sp. : Verdcourt 2108**

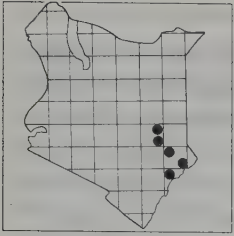
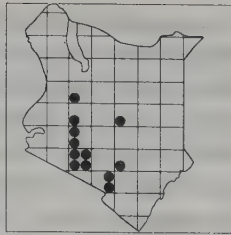
Woody herb or shrub 0.6-2m. Leaves broadly elliptic, base cuneate, apex obtuse or rounded, 0.8-6 by 0.6-3cm, (densely) puberulous. Flowers white or pale lilac, in terminal densely bracteate spikes 4-13cm long; corolla tube 6-13mm, lobes 8-14mm long. Fruit



Dyschoriste thunbergiiflora



Ecbolium sp.

*Ecobolium* sp.*Justicia cordata*

10-12 by 3-7mm.

K17; 1-250m; I, V, VIII-IX, XI-XII *

Seasonally flooded bushland; often on black cotton soil.

11. JUSTICIA

Flowers in axillary or terminal clusters. Corolla 2-lipped, top lip hooded and 2-lobed, lower lip spreading and 3-lobed. Stamens 2. Fruit 4-seeded.

- | | |
|--|---------------------------|
| 1. Inflorescence terminal (sometimes also axillary) | 2 |
| * Inflorescence axillary | 3 |
| 2. Inflorescence a branched panicle | 2. <i>J. extensa</i> |
| * Inflorescence a dense spike with white-margined bracts | 4. <i>J. pseudorungia</i> |
| 3. Inflorescence a sessile cluster | 3. <i>J. odora</i> |
| * Inflorescence pedunculate | 4 |
| 4. Leaves densely puberulous, cuneate or rounded at base | 5. <i>J. sp. D</i> |
| * Leaves glabrous or nearly so, (sub) cordate or rounded at base | 1. <i>J. cordata</i> |

1. *Justicia cordata* (Nees) T. Anders

Woody herb or shrub, sometimes semi-scandent, 0.3-1.8m. Leaves elliptic to slightly obovate, subsessile, base rounded or (sub)cordate, apex rounded with a small mucro (rarely acute), 1.5-6.5 by 0.8-3(5)cm, glabrous or ciliate. Flowers cream with purple markings, in axillary pedunculate (few-flowered) cymes; corolla tube 4-9mm, lobes 8-12mm long. Fruit 18-30 by 5-6mm.

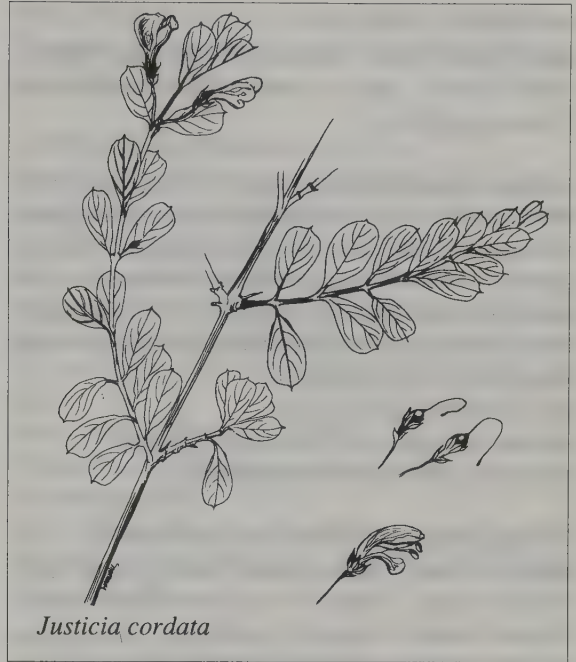
K1346; 550-2000m; I-XI

Dry bushland or bushed grassland, especially on lava or rocks; also in wooded grassland, on black cotton soils or near luggas.

Agagarra (BOR), Ol-kaamasia (MAA).

2. *Justicia extensa* T. Anders

Shrub or climber, 2-2.5(+?)m. Leaves ovate, base

*Justicia cordata*

subcordate and often unequal, apex acuminate, 6-11 by 3-6cm, glabrous. Flowers cream, in loose terminal panicles 5-12cm long (axillary panicles may also be present); corolla tube 4-6mm, lobes 7-9mm long. Fruit 24-27 by 5-6mm.

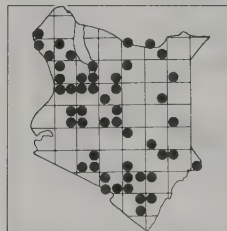
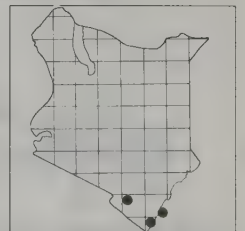
Three specimens known from Kakamega, Yala, Kisere forest undergrowth; 1550-1600m; X *

3. *Justicia odora* (Forssk.) Vahl

Woody herb 0.6-1m; rarely scrambling to 2m high. Leaves (narrowly) elliptic to slightly obovate, base cuneate, apex acute or rounded, 0.8-6 by 0.4-2.5cm, mostly quite small; glabrous or pubescent. Flowers yellow, in axillary sessile clusters; corolla tube 4-6mm, lobes 6-13mm long. Fruit 7-14 by 2-4mm.

K123467; 1-1650m; I-XII (I, IV-VIII)

Dry bushland, bushed grassland, semi-desert scrub;

*Justicia odora**Justicia pseudorungia*

also on black cotton soil.

Algi, Sarim (BOR), Loparra (TUR), Argi (REN), Lodto (SAM). Bark or stems used as perfume by Turkana and Pokot.

4. *Justicia pseudorungia* Lindau map page 603
Woody herb 1-2m. Leaves elliptic, base cuneate, apex acuminate to acute, 8-16 by 3-7cm, glabrous. Flowers (greenish) white with some purple on lower lip, in terminal densely bracteate spikes 2.5-10cm long; bracts with white margins; corolla tube 5-6mm, lobes 6-8mm long. Fruit 11-13 by 4mm.

K7; 50-1850m; I-II, VI, IX *

In shade of forest or of limestone outcrops.

Resembles *Adhatoda schimperiana*.

5. *J. regis* Hedren (*Justicia* sp. D of UKWF)

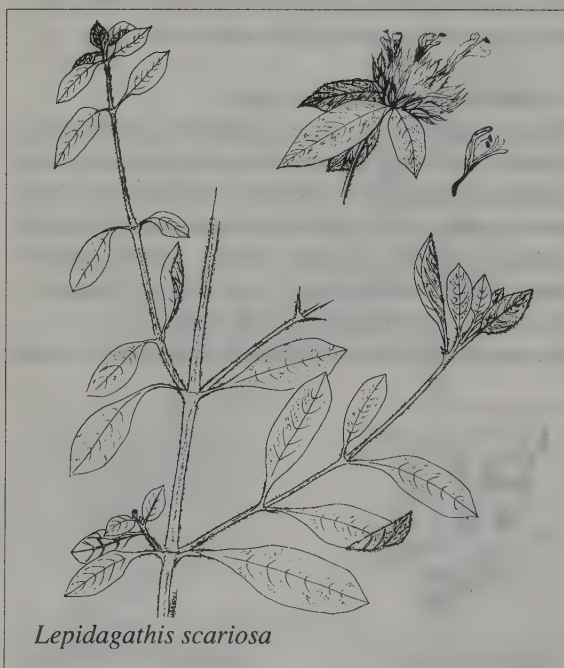
Shrub to 3.6m. Leaves elliptic, base cuneate, apex obtuse or acute, 1-3 by 0.5-1cm, densely puberulous. Flowers white or mauve, in (shortly) pedunculate axillary cymes; corolla and fruit not seen.

K3; 1200m; XII

Overgrazed land at Baringo

12. LEPIDAGATHIS

Corolla 2-lipped; stamens 4; fruits 2-4-seeded.



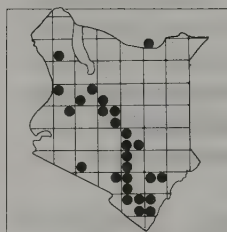
Lepidagathis scariosa Nees

Woody herb or shrub 0.1-3m. Leaves ovate or elliptic, base cuneate, apex obtuse or rounded, 0.8-7.5 by 0.4-4.5cm, densely short-pubescent beneath with star-hairs intermixed. Flowers white or mauve, with a paler upper lip, in dense terminal, sessile clusters with spiny-topped bracts; corolla tube 8-12mm, lobes 7-10mm long. Fruit hidden by the bracts.

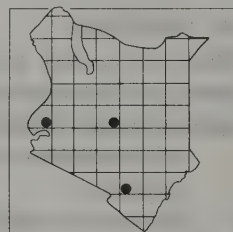
K123467; 350-1600m; I-II, IV-XII (I-II, V-VI)

Dry (rocky) bushland or bushland/woodland. May be locally common, especially where bushland has been cleared.

Ithande (KAM), Lopara (PKT), Ekeleu (TUR).



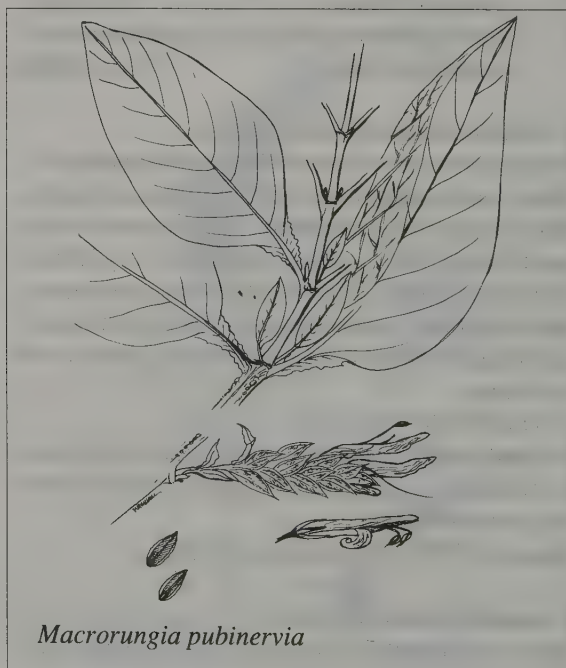
Lepidagathis scariosa



Macrorungia pubinervia

13. MACRORUNGIA

Flowers in spikes, axillary in axils of fallen leaves. Corolla 2-lipped; upper lip boat-shaped, lower lip inrolled (and 3-lobed). Stamens 2. Fruit 4-seeded.



***Macrorungia pubinervia* (T. Anders) C.B.Cl.**

Shrub 1-5m. Leaves elliptic, base cuneate, apex shortly acuminate, 14-22 by 4-9cm, puberulous, especially on veins beneath. Flowers red, in densely bracteate spikes 2-6.5cm long; corolla tube 8-11mm, upper lip 20-30mm long. Fruit 16-20 by 5-6mm.

K45; 1200-1600m; I, VI, VIII *

Forest undergrowth.

Monde (KAM).

14. MIMULOPSIS

Corolla with 5 almost equal lobes, stamens 4; fruit 6-8 seeded.

1. Shrub with leaves 9-25cm wide; inflorescence
a \pm dense raceme

2. *M. arborescens*

- * Woody herb, leaves 1.5-8cm wide

2

- 2 Flowers in loose panicles, flowers not touching

3. *M. solmsii*

- * Flowers in dense spike-like racemes, touching

1. *M. alpina***1. *M. alpina* Chiov.**

Woody herb or shrub resembling *M. solmsii*.

K1346; 2100-3150m; I-III, VII-XII

Forest or *Hagenia* zone, on Kulal, Mt Kenya, Nyan-darua, Mau and Elgon.

Note. Said to flower once every 12 years, but at Kinangop collected (in flower) at shorter intervals, e.g. 1963 and 1965.

2. *Mimulopsis arborescens* C.B.Cl.

Shrub 2-5m, sometimes with stilt roots to 1m. Leaves ovate and more or less lobed, base cordate, apex acuminate, margin irregularly toothed, 9-26 by 9-25cm, somewhat sandpapery on the veins. Flowers white with some orange inside, in rather dense bracteate racemes 6-26cm long; calyx glandular; corolla tube 17-24mm, lobes 16-21mm long. Fruit 33-38 by 7-8mm.

K345; 1850-2500m; VI, X-XII *

Riverine or swampy sites in moist forest.

Muhembeta (KIK).

Note. This species is said to flower at long intervals. At Thiba Fishing Camp it was collected, in flower, in 1971 and 1979.

3. *Mimulopsis solmsii* Schweinf.

(Woody) herb 0.8-1.8m, sometimes scrambling to 3m. Leaves ovate, base (sub-)cordate, apex acuminate, margin crenate or serrate, 4-12 by 1.5-8cm, sparsely pubescent to almost glabrous. Flowers white or yellowish, often tinged with pink, with 2 yellow bumps on lower lip; in loose terminal panicles; calyx glandular; corolla tube 8-17mm, lobes 7-15mm. Fruit 17-25 by 3-5mm.

K3456; 1650-2550m; I-II, IV, VI, X-XII.

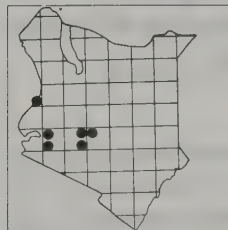
Forest undergrowth or -margins; may be abundant, especially where forest is disturbed.

Setyot (KIP), Liliambili (LUH).

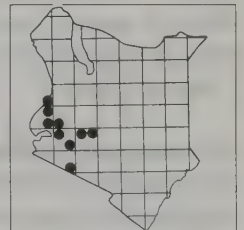
Note. Said to flower at long intervals (Oloipangi: 1966 and 1979).

15. PSEUDERANTHEMUM

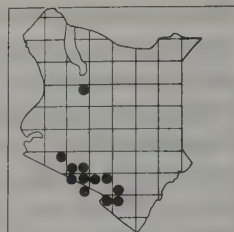
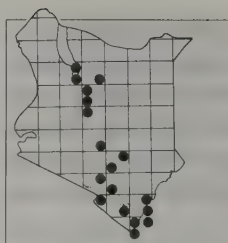
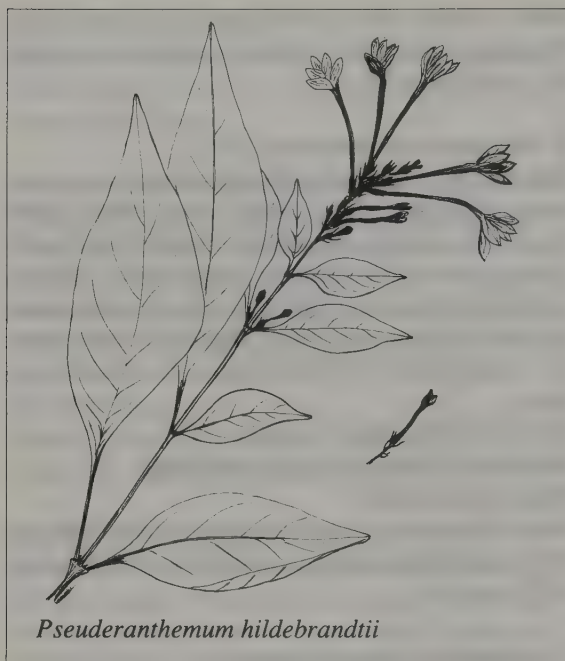
Flowers in pedunculate spikes (actually a panicle !); corolla with long tube and 5(sub-)equal lobes. Sta-



Mimulopsis arborescens



Mimulopsis solmsii



Pseuderanthemum hildebrandtii. *Ruellia megachlamys*

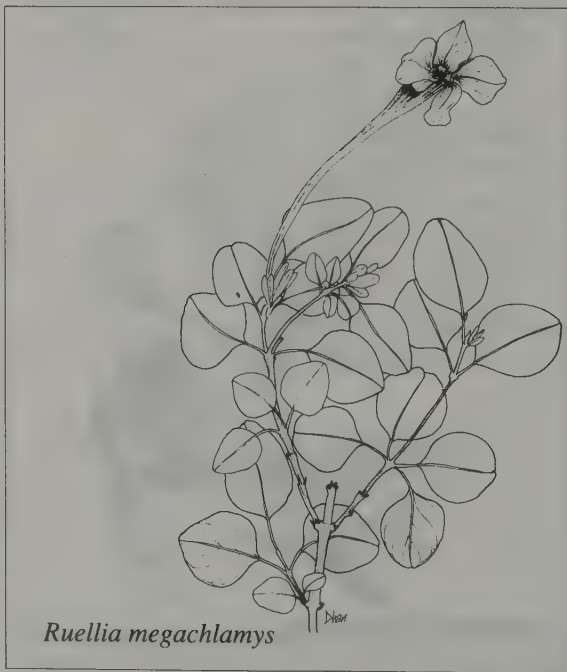
spotted with purple, in rather dense terminal spikes 6-22cm long; corolla tube 21-32mm, lobes 7-10mm long. Fruit 20-43 by 3-8mm.

K5; Kakamega Forest; I-II, X-XII *
(Riverine) forest undergrowth.
Shibuku (LUH).

3. *Pseuderanthemum tunicatum* (Afz.) Milne-Redh.
Woody herb 0.3-1.8m. Leaves elliptic, base cuneate, apex acuminate, 7-16 by 3-8cm, glabrous. Flowers (pale) purple, in loose terminal spikes; corolla tube 20-22mm, lobes 7-12mm long. Fruit 17-20 by 3-4mm. K7; 50-450m; II, IV, X-XII *
(Riverine) forest; Shimba Hills and Buda.

16. RUELLIA

Corolla with cylindrical tube and 5 subequal lobes.



mens 2, + 2 staminodes. Fruit 4-seeded.

1. Flowers orange or red; seeds smooth on one side **1. *P. hildebrandtii***

* Flowers white, lilac or purple; seeds rough **2**

2. Stamens exserted; Kakamega **2. *P. ludovicianum***

* Stamens included; Shimba Hills

3. *P. tunicatum*

1. *Pseuderanthemum hildebrandtii* Lindau

Woody herb or shrub 0.3-2m. Leaves ovate, base attenuate, apex acuminate, 2-17 by 1-8cm (large in shade), glabrous or nearly so. Flowers orange or red, in dense axillary or terminal spikes 2-15cm long; corolla tube 20-34mm, lobes 6-15mm long. Fruit 18-25 by 3-4mm.

K1467; 1-1800m (inland); I-II, IV-X, XII

Forest, riverine forest, and woodland; on the coast in forest or dense bushland on coral.

Chiwewe (DIG).

2. *Pseuderanthemum ludovicianum* (Buett. n.) Lindau

(Scandent) woody herb 0.9-2m. Leaves elliptic or slightly obovate, base cuneate, apex acuminate, 12-24 by 3.5-12.5cm, glabrous. Flowers white or lilac,

Stamens 4. Fruit with many seeds.

***Ruellia megachlamys* S.Moore**

Woody herb or shrub 0.3-2m. Leaves broadly ovate, base rounded or subcordate, apex obtuse or rounded, 1.5-5 by 1.2-4.5cm, pubescent. Flowers white or yellow, axillary and solitary; corolla tube 78-130mm, lobes 13-19mm long. Fruit obovoid and apiculate, 17-21 by 9-11mm.

K1467; 600-1700m; I-V, X-XII

Dry (rocky) bushland; also in woodland or dry wooded grassland.

17. RUSPOLIA

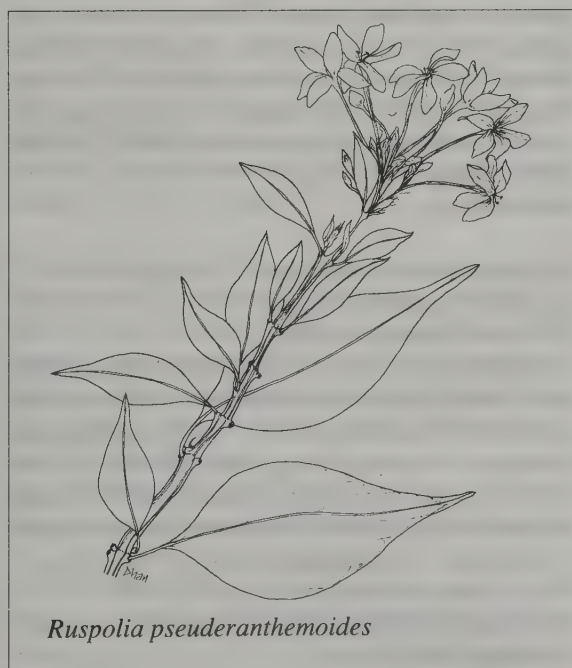
Similar to *Pseuderanthemum*, but anthers 1-celled instead of 2-celled, and seeds with one smooth side.

***Ruspolia pseuderanthemoides* Lindau**

Woody herb or shrub 0.5-4m, occasionally scrambling. Leaves ovate, base cuneate/attenuate, apex shortly acuminate, 2-8 by 1-3.5cm, glabrous or nearly so. Flowers red, in dense spike-like axillary or terminal panicles; corolla tube 23-27mm, lobes 9-11mm long. Fruit 30-38 by 5mm.

K7; 1-25m; XI-XII *

Coastal bushland on coral (nr. Vipingo, and Tiwi).



18. RUTTYA

Flowers in few-flowered axillary cymes. Corolla 2-lipped, upper lip 2-lobed, lower lip 3-lobed and deflexed; throat thickened. Stamens 2. Fruit 4-seeded.

***Ruttya fruticosa* Lindau**

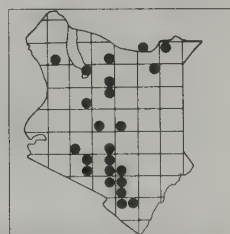
Shrub 0.6-3(5)m, sometimes climbing. Leaves ovate or elliptic, base cuneate, apex obtuse to bluntly acuminate, 1-9.5 by 0.5-5cm, glabrous or nearly so. Flowers red (rarely yellow) with black throat, in axillary cymes; corolla tube 8-17mm, lobes 12-22mm long. Fruit 33-49 by 3-8mm.

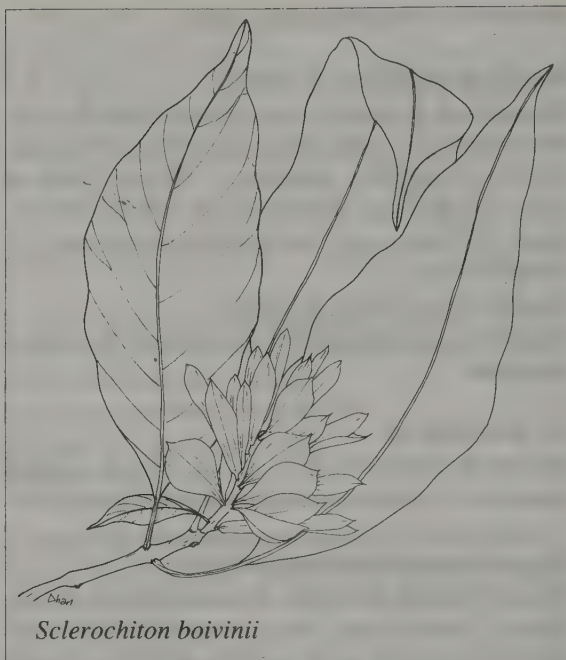
K123467; 600-1900m; I-VIII, X-XII (V-VI).

Bushland (*Acacia-Commiphora* or *Tarchonanthus*) Often in rocky sites, in riverine bushland or thickets, sometimes in drier forests.

Kalkadha (BOR), Mujuga (KIK, KAM), Il-as (SOM), Mbipia (SAM).

Ruttya fruticosa



*Satanocrater paradoxa**Sclerochiton boivinii***19. SATANOCRATER**

Calyx large, inflated. Corolla with 5 subequal lobes. Stamens 4. Fruit 4-seeded.

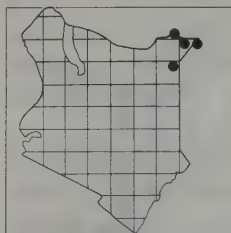
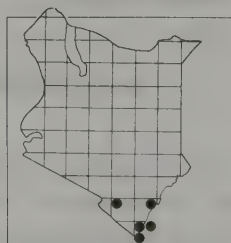
Satanocrater paradoxa (Lindau) Lindau
Shrub 1-1.5m. Leaves circular or broadly obovate, base cuneate, apex rounded, 1-3 by 0.6-3cm, densely puberulous. Flowers orange, axillary and solitary; calyx 23-26mm long; corolla tube about as long as the calyx, lobes 15-18mm long, one lobe minute.

K1; 250-950m; I, IV-V, XII *

Acacia-Commiphora bushland or -woodland.

20. SCLEROCHITON

Flowers in short dense bracteate spikes; bracts coloured. Calyx large. Corolla with one 3-5-lobed lip. Stamens 4. Fruit 2-4 seeded, woody.

*Satanocrater paradoxa**Sclerochiton boivinii*

1. Flowers white or blue

* Flowers orange

2. *S. vogelii*

1. *S. boivinii*

1. *Sclerochiton boivinii* (Baill.) C.B.Cl.

Shrub 1.5-5m. Leaves elliptic, base cuneate, apex obtusely acuminate, (margins sometimes faintly crenate), 7-40 by 2.5-9cm, glabrous. Flowers yellow and orange, in terminal or axillary spikes to 7cm long; bracts and sepals pinkish-purple, 15-30mm long with one sepal to 44mm. Corolla and fruit hidden in sepals. K7; 1-1500m; II, V, VII-IX *

Moist forests.

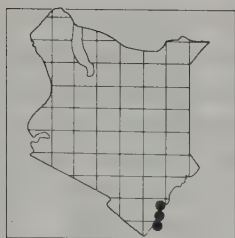
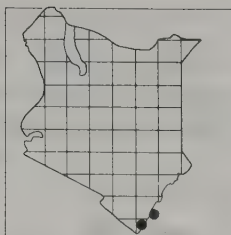
2. *Sclerochiton vogelii* (Nees) T. Anders

ssp. *holstii* (Lindau) Napper

[*S. holstii* (Lindau) C.B.Cl.]

(Scandent) shrub 1-4m. Leaves elliptic, base cuneate, apex shortly acuminate; leaves of a pair often very unequal, but the larger up to 13.5 by 8cm, glabrous or nearly so. Flowers white, blue or violet, in few-flowered axillary or terminal spikes; bracts/bracteoles to 14mm long, sepals to 25mm long; corolla tube 8-10mm, lobe 12-15mm long. Fruit 12-15mm long. K7; 1-500m; IV-VII, IX-XII *

Dry forest, *Brachystegia* woodland, and in shade on limestone outcrops.

*Sclerochiton vogelii**Styasasia sp.**Styasasia sp.***21. STYASASIA**

Corolla 2-lipped; lower lip 3-lobed, upper 2-lobed. Stamens 4. Fruit 2-4 seeded.

Styasasia sp.

(Drummond & Hemsley 1220, Brenan et al. 14574) Woody herb or shrub 0.9-2m. Leaves elliptic, base cuneate, apex acuminate, 8-16 by 3-6cm, glabrous. Flowers white, violet-tipped, in terminal racemes 2.5-6cm; corolla tube 13-15mm, lobes 15-23mm long. Fruit 18-33 by 3-6mm.

K7; 150-250m; II, IV, VIII, XI *

Riverine in moist forest on S coast. (1990: Pangani)

22. THUNBERGIA

Flowers axillary, at the base enclosed by 2 large bracteoles; corolla with 5 subequal lobes. Stamens 4.

Fruit conical, tapering, 4-seeded.

1. Leaves with one obtuse teeth on each margin

3. *T. kirkii*

- * Leaf margins entire or undulate

2

2. Leafbase cordate; venation palmate

1. *T. guerkeana*

- * Leafbase cuneate or obtuse; venation pinnate

2. *T. holstii*

1. *Thunbergia guerkeana* Lindau Map next page
Trailing or climbing woody herb, to 5m. Leaves broadly ovate, base cordate, apex acuminate, 3-10 by 1.5-8cm, glabrous. Flowers white or cream, axillary, solitary; basal bracteoles white or cream. Calyx with 10-15 linear lobes; corolla tube 85-130mm long, lobes 18-34mm long. Fruit conical, 17-20 by 10-14mm, tapering to the top.

K147; 350-1200m; I-VI, VIII, X-XII (III-V, XII-I)

Dry bushland or wooded grassland; in very dry areas near (seasonal) water.

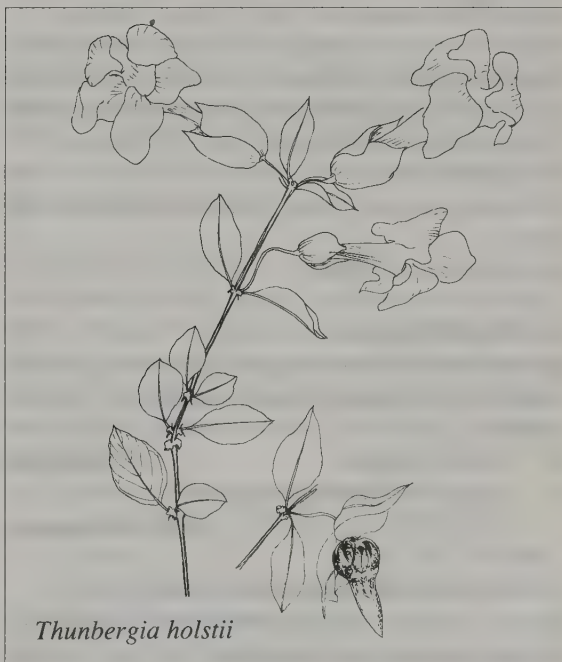
Rubiss (SOM). Flowers at night.

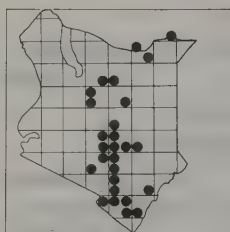
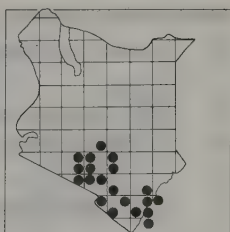
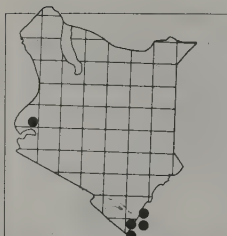
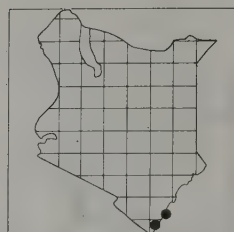
2. *Thunbergia holstii* Lindau

(*T. affinis* S. Moore)

Map next page

Shrub 0.5-3m, rarely scandent to 5m. Young stems quadrangular with (usually) small spines to 2mm.

*Thunbergia holstii*

*Thunbergia guerkeana**Thunbergia holstii**Whitfieldia elongata**Whitfieldia stuhlmannii*

Leaves ovate or elliptic, base cuneate to obtuse, apex obtuse to acuminate, margins undulate, 1-6 by 0.8-3cm, glabrous. Flowers deep (blue-) purple with a yellow throat, axillary, solitary; basal bracteoles to 3cm; calyx irregularly lobed; corolla tube 30-50mm, lobes 13-25mm. Fruit conical, 25-32 by 11-19mm, tapering to top.

K467; 1-1850m; I, IV-VIII, X-XII (V, XII).

Bushed or wooded grassland or fairly open dry and coastal bushland; very common on roadsides between Sultan Hamud and Mtito Andei, and near Namanga. Mkia ya ngombe (SWA), Mutati, Mututi, Manzele (KAM).

3. *Thunbergia kirkii* Hook.f.

Woody herb or shrub 0.5-3m. Young stems quadrangular. Leaves ovate or rhomboid, base cuneate, apex acuminate, margin with a broad, obtuse tooth on each side (rarely entire), 2-7.5 by 0.6-4cm, glabrous; 3-veined from base to upper half of leaf. Flowers blue or purple, axillary, solitary or in pairs; bracteoles to 1cm; calyx a minute rim; corolla tube 16-20mm, lobes 5-10mm long. Fruit conical, 14-16 by 7-8mm.

K7; 1-150m; III-V *

Evergreen coastal forest between Mombasa and Diani.

Kipilipili mwitu (SWA).

23. WHITFIELDIA

Flowers in bracteate racemes; calyx white; corolla with 5 lobes, slightly 2-lipped; stamens 4. Fruit 4-seeded.

1. Leaves glabrous

1. *W. elongata*

* Leaves with star-hairs on veins

2. *W. stuhlmannii*

1. *Whitfieldia elongata* (Beauv.) C.B.Cl.

Shrub or climber 1.8-4.5m, evergreen. Leaves elliptic, base cuneate, apex acuminate, 8-30 by 3-12cm,

glabrous. Flowers white, in axillary or terminal bracteate racemes 3-13cm long; calyx and bracts (pinkish) white; corolla tube 45-60mm, lobes 20-26mm long. Fruit hidden in calyx.

K57; 1-500m (coast), 1450-1500m (western); I, X-XII *

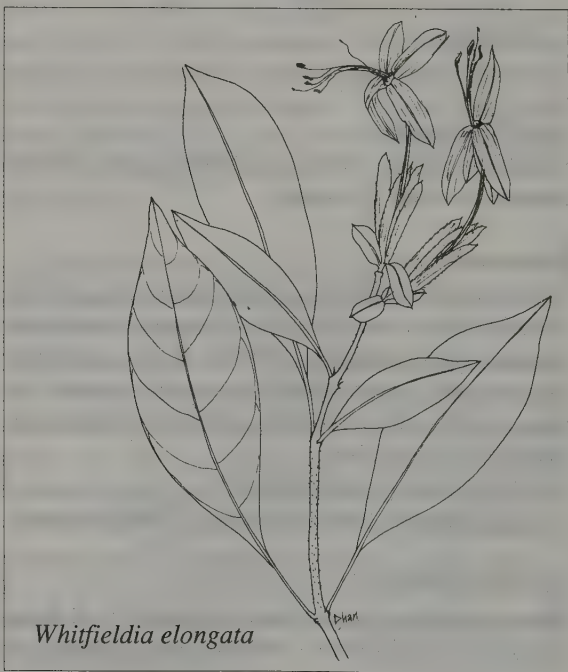
Evergreen and riverine forest.

Note. The two collections from West Kenya are both from Bukura (1927, 1943) where the species has not been collected for over 40 years.

2. *Whitfieldia stuhlmannii* (Lindau) C.B. Cl.

Shrub to 2m with white-purple flowers.

K7; Cha Simba and Shimba Hills, in forest; I*

*Whitfieldia elongata*

263. VERBENACEAE

Trees, shrubs, climbers or herbs. Leaves opposite or verticillate, exstipulate, entire or compound. Flowers bisexual, zygomorphic, with a corolla tube and 4 or 5 lobes; stamens 4. Fruit a drupe.

- | | |
|--|--------------------------|
| 1. Leaves compound | 8. <i>Vitex</i> |
| * Leaves simple | 2 |
| 2. Mangrove trees with breathing roots and fleshy leaves | 1. <i>Avicennia</i> |
| * Not mangroves | 3 |
| 3. Branches with many small recurved prickles | 5. <i>Lantana camara</i> |
| * Branches without prickles (sometimes with paired spines) | 4 |
| 4. Climbers with recurved paired spines at nodes (old petioles) | 2. <i>Clerodendrum</i> |
| *b Plant erect with straight spines | 3. <i>Duranta</i> |
| *c Plants unarmed | 5 |
| 5. Flowers and fruits in dense axillary spikes | 6 |
| * Flowers and fruits in either lax axillary cymes or terminal panicles | 7 |
| 6. Fruit dry; flowers white | 6. <i>Lippia</i> |
| * Fruit fleshy; flowers yellow, mauve or pink | 5. <i>Lantana</i> |

NOTE: *Lantana viburnoides* has white flowers and is therefore also included in the *Lippia* key.

- | | |
|---|------------------------|
| 7. (Climbing) shrubs; corolla 5-lobed; fruit 4-seeded | 2. <i>Clerodendrum</i> |
| * Shrub or trees; corolla 4-lobed; fruit 1-seeded | 7. <i>Premna</i> |

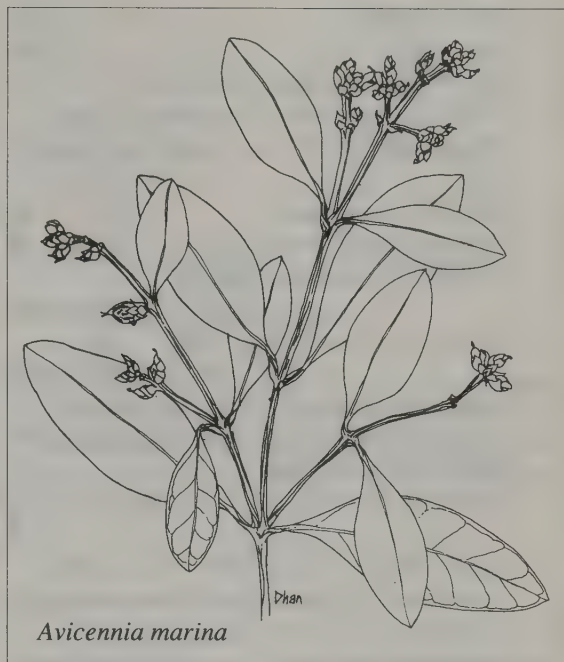
NOTE: 4. *Karomia gigas*, a large tree from the coast, is not included in the key since only its leaves and loose fruits are known.

1. AVICENNIA

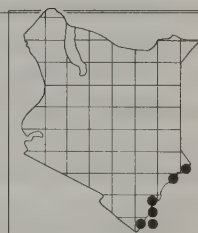
Mangrove tree with pencil-like pneumatophores. Leaves thick. Inflorescence axillary or terminal. Sepals 5. Tube shorter than lobes. Fruit a capsule; seeds germinating on the tree.

Avicennia marina (Forssk.) Vierh.

Tree 4-12m; bark smooth, yellowish. Leaves greyish below, elliptic, base cuneate, apex acute or obtuse, 4-11 by 1.5-4cm, glabrous or seemingly so. Flowers yellow, in dense globose heads on short square peduncles, corolla 4-6mm long. Fruit greyish, ovoid with apiculate apex, 17-28 by 11-20mm, densely puberulous.



Avicennia marina



Avicennia marina

K7; 0-2m; I-IV, X, XII *

Mangrove on sand or mud, usually on the landward side; a pioneer species in swamps.

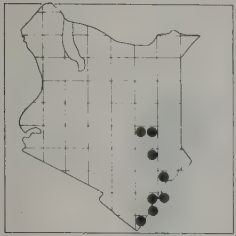
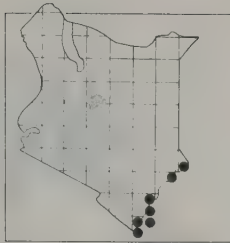
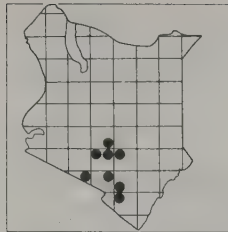
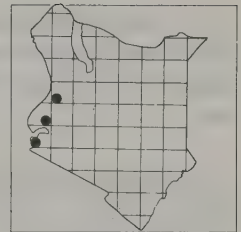
Mchu, Mtu (SWA), Mutu (BAJ), Mtswi (GIR). Timber used for dhow ribs; wood used for limeburning; the bark yields a brown dye.

2. CLERODENDRUM

Shrubs and climbers. Leaves opposite or verticillate, simple, frequently glandular below. Flowers in lax axillary cymes or terminal panicles; flowers 5-lobed, stamens mostly exserted, as is the style. Fruiting calyx enlarged; fruit ellipsoid, fleshy, 4-seeded and sometimes 4-lobed.

- | | |
|---|--------------------------|
| 1. Leaves incised (coastal forest) [though occasionally specimens occur with entire leaves] | 9. <i>C. incisum</i> |
| * Leaves entire or leaf-margin toothed | 2 |
| * (flowers present but no leaves) | 11. <i>C. makanjanum</i> |

2. Plant in flower 3
 * Plant in fruit 14
 3. Corolla tube more than 28mm long 4
 * Corolla tube less than 23mm long [a large-flowered form of *C. buchholzii* might occur] 6
 4. Flowers in dense heads 26
 * Flowers in lax inflorescences 5
 5. Corolla tube more than 6cm long
 15. *C. rotundifolium*
 * Corolla tube less than 4cm long
 8. *C. hildebrandtii*
 6. Flowers blue, purple or greenish, sometimes with one or two lobes white 13. *C. myricoides*
 * Flowers white or cream 7
 7. Kakamega forest climbers with glabrous leaves 8
 * Either shrubs of dry environment, or coastal plants, or climbers with very hairy leaves 10
 8. Corolla tube 10-12mm; flowers and fruits mainly on old wood 2. *C. buchholzii*
 * Corolla tube 4-6mm; flowers and fruits at end of branchlets 9
 9. Leaf base rounded; leaves drying black
 12. *C. melanocrater*
 * Leaf base cuneate, leaves drying greenish
 6. *C. formicarum*
 10. Upland forest climber with tomentose leaves
 10. *C. johnstonii*
 * Shrub or small trees, or coastal climber 11
 11. Corolla tube less than 10mm long 12
 * Corolla tube more than 12mm long 13
 12. Flowers in dense clusters; above 750m
 4. *C. eriophyllum*
 * Flowers in lax cymes; near the sea 27
 13. Leaf base rounded or subcordate; coastal riverine climber 1. *C. acerbianum*
 * Leaf base cuneate; inland, dry bushland shrub
 14. *C. robecchii*
 14. Fruit with spongy processes 1. *C. acerbianum*
 * Fruit smooth 15
 15. Leaves fleshy, serrate 11. *C. makanjanum*
 * Leaves not fleshy 16
 16. Fruits in crowded heads, with very short pedicels 17
 * Fruits in lax inflorescences, with visible pedicels at least 3mm long 18
 17. Leaves not glandular beneath; calyx 14-20mm long
 3. *C. capitatum*
 * Leaves glandular beneath; calyx less than 10mm long 4. *C. eriophyllum*
 18. Calyx more than 9mm long, deeply split into lobes 19
 * Calyx less than 8mm long, shallowly lobed 20
 19. Calyx 18-20mm long; pedicels 13-20mm
 15. *C. rotundifolium*
 * Calyx 9-12mm long; pedicels 5-10mm
 8. *C. hildebrandtii*
 20. Leaves glabrous 21
 * Leaves more or less pubescent or sandpapery 24
 21. Leaves glandular beneath 22
 * Leaves not glandular 23
 22. Plants with entire leaves, close to the sea
 7. *C. glabrum*
 * Plants often with toothed margins; above 100m
 13. *C. myricoides*
 23. Kakamega forest climbers return to 8
 * Coastal shrubs
 13. *C. myricoides*, 16. *C. sansibarense*
 24. Dry area shrubs 25
 * Forest climber, many-fruited 10. *C. johnstonii*
 * Coastal shrub or climber 16. *C. sansibarense*
 25. NE Kenya only; leaves to 2.5 by 1.5cm
 14. *C. robecchii*
 * Widespread; leaves to 11 by 5cm
 13. *C. myricoides*
 26. Eastern Kenya 3. *C. capitatum*
 * Western Kenya 5. *C. fischeri*
 27. Flowers pure white 7. *C. glabrum*
 * Flowers with one mauve or greenish lobe
 16. *C. sansibaricum*
1. *Clerodendrum acerbianum* (Vis.) Benth. & Hook.f. (Scandent) shrub 1-3m. Leaves ovate or elliptic, base subcordate or rounded, apex acute or obtuse, 2-7.5 by 1-4cm, densely pubescent. Flowers white with pink or purple filaments, in dense axillary or terminal clusters; corolla tube 13-23mm, lobes 4-6mm long. Fruit covered in spongy processes, 10-15mm across. K7; 1-150m; I-III, V, VII-XII *
 Riverine, in scrub or woodland.
 Mtozatoza, Mkambe (SWA), Karhabela (ILW), Karapela (ORM). Roots used in stomach medicine by the Giriama; twigs used in fish traps.

*Clerodendrum acerbianum**C. capitatum**Clerodendrum eriophyllum**C. fischeri***2. *Clerodendrum buchholzii* Gürke**

Liana to at least 30m high, climbing with persistent petiole bases (to 2cm, almost spiny). Leaves (sub-)opposite, elliptic, base rounded or cuneate, apex acuminate, 5-14 by 2-7.5cm, glabrous. Flowers white, from lower stems (cauliflorous) and occasionally on leafy shoots, in loose panicles, to 20cm long; corolla tube 10-12mm, lobes 3-4mm long. Fruiting panicles to 30cm, fruiting calyx to 10mm. Fruit dark green, to 12mm long.

K5; 1200-1650m; VIII-X, XII *

Only known from Kakamega forest and once found in Bukeria area in 1933. Moist evergreen forest.

3. *Clerodendrum capitatum* (Willd.) Schum. & Thonn.

Shrub or climber 1-6m; petiole occasionally remaining as spines. Leaves elliptic or slightly (ob-)ovate, base cuneate to subcordate, apex acuminate, margin occasionally somewhat sinuate, 6-18 by 3-9cm, glabrous or stiffly hairy. Flowers white, in dense terminal clusters with large reddish or purple sepals; corolla tube 50-85mm, lobes 7-14mm long. Fruiting calyx to 20mm; fruit to 13mm long.

K35; 1200-1950m; VIII-XII *

(Riverine) forest or wooded grassland.

Moza nyama (SWA).

4. *Clerodendrum eriophyllum* Gürke

Shrub (rarely small tree) 0.5-4m. Leaves opposite or in threes, ovate or elliptic, base cuneate or almost rounded, apex acute or obtuse or slightly acuminate, 2-8 by 1-5cm, puberulous above and pubescent beneath; glandular beneath. Flowers white, in dense or lax terminal or axillary clusters; corolla tube 4-9mm, lobes 2-4mm long. Fruit to 8mm long.

K467; 750-1350m; I-III, V-VII, X, XII

Scattered tree grassland or dry bushland.

Kiumbwa, Muumbwa (KAM), Giyapp, Gurb (SOM).

Kamba use the leaves in malaria medicine.

5. *Clerodendrum fischeri* Gürke

ssp. *fischeri*

Shrub 2-3m. Leaves broadly elliptic to slightly obovate, base cuneate to rounded, apex acuminate, 7-17 by 4-11cm, densely hairy. Flowers white, in round terminal inflorescences; corolla 7-15cm long. Fruit not seen.

K7; 1-100m; III*

Grassland, wooded grassland, forest clearings.

6. *Clerodendrum formicarum* Gürke

(*C. triplinerve* Rolfe)

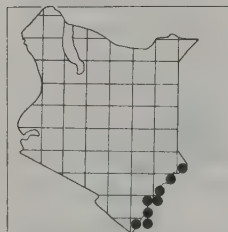
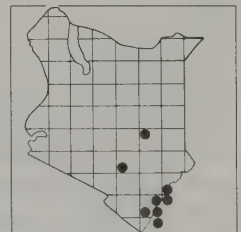
Shrub, tree or climber 1.5-6m, with hollow ridged stems. Petiole often remaining as a spine. Leaves in threes or fours, elliptic or slightly ovate, base cuneate, apex acuminate, 4-10 by 2-5cm, basal 2 veins often reaching into upper half of leaf, glabrous. Flowers white, in many-flowered terminal panicles; corolla tube 4-6mm, lobes 2-3mm long. Fruit black, to 11mm long.

K5, collected 4 times in and around Kakamega forest, and once in the SW Mau.

7. *Clerodendrum glabrum* E. Mey.

Shrub or small tree 0.5-4.5m, much-branched. Leaves opposite or in threes, ovate or elliptic, base cuneate, apex acute, 2.5-12 by 0.8-6cm, glabrous, densely glandular beneath. Flowers white, in loose cymes; corolla tube 5-10mm, lobes 2.5-5mm long. Fruit to 6mm long.

K7; 1-50m; I-III, V-X (VI-IX)

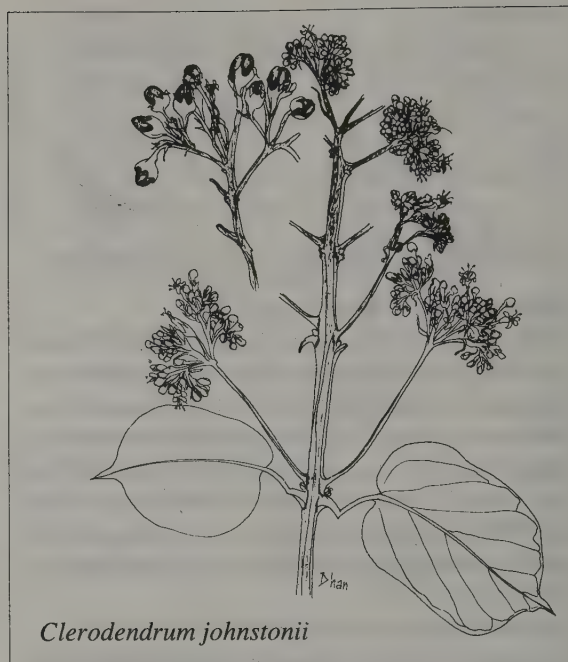
*Clerodendrum glabrum**C. hildebrandtii*

Coastal bushland, bush/grass mosaic near beach, thickets on dunes; on coral or white sand.
Mtozatoza, Mkula-usiku (SWA). Twigs used for fish-traps.

8. *Clerodendrum hildebrandtii* Vatke map p. 613
Shrub, much-branched, 1-4m (rarely a small tree). Leaves slightly fleshy, broadly ovate, base broadly cuneate to (sub-)cordate, apex rounded and apiculate, 5-10 by 4-10cm, glabrous. Flowers white or cream, fading to mauve, in few-flowered panicles; corolla tube 28-35mm, lobes 7-12mm long. Fruit about 9mm. K147; 1-900m; I-II, IV-VII, X-XII (VI) (Disturbed) bushland, or grassland. Mtozatoza, Mkula-usiku (SWA), Mkula-usiku (GIR). Roots used in chest medicine; leaves pounded for fish bait.

9. *Clerodendrum incisum* Klotzsch
Shrub 0.5-3m. Leaves lobed or incised (rarely entire), lobes pointed, base attenuate, apex long-acute, 4-16 by 1.5-7cm, glabrous or sandpapery; glandular beneath. Flowers white, in 3-10-flowered panicles (?); corolla tube 50-75mm, lobes 10-15mm long. Fruit not seen. K7; 1-300m; IV-XII (VIII)
Moist or dry forest; less often in open forest or evergreen bushland. Ngagna (BON), Murusapungu (DIG), Karusapungu (GIR). Boni use a leaf decoction against headache.

10. *Clerodendrum johnstonii* Oliv.
Shrub or liana 1.5-20m, climbing with remaining bases of petioles which are hooked and spiny. Leaves opposite or in threes, (ob)ovate or elliptic, base rounded or subcordate, apex shortly acuminate, 6.5-19 by 3.5-14cm, (densely) tomentose beneath. Flowers white, in a many-flowered terminal panicle; corolla tube 6-9mm, lobes 3-4mm long. Fruit orange to black, to 1cm

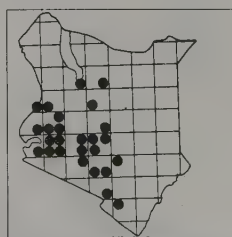
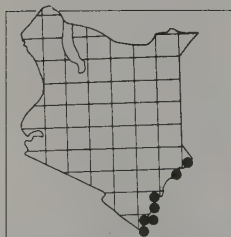


Clerodendrum johnstonii

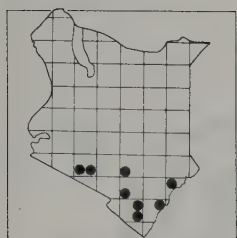
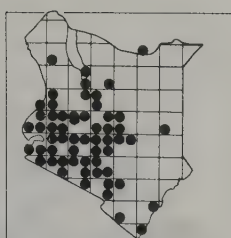
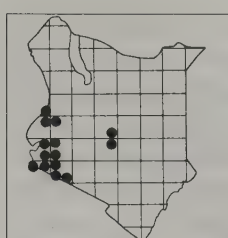
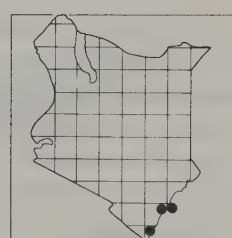
long, but often galled.
K1345(6)7; 1200-2500m; I-XII (II-IV, VII-IX).
Moist forest (edges), also in secondary forest. May be locally common.
Muteangwai (KAM), Muringo (KIK), Lisala (LUH), Jersegao (MAR), Kiankware (MER), Singoruet (NDO, KIP), Mdiguaroshi, Mukochokocho (TAI), Kisolobi (TUG).

11. *Clerodendrum makanjanum* Winkler
Shrub with sarmentose branches 0.5-2m; branches slightly fleshy. Leaves on short branches, opposite, elliptic, base attenuate, apex rounded or obtuse, margin coarsely serrate, up to 5 by 3cm. Flowers appearing when the shrub is leafless, cream or greenish with the top petal purplish, in a paniculate spike 4-9cm long; inflorescence purple; corolla tube 4-8mm, lobes 5-7mm long. Fruit slightly obovate, 3- or 4-lobed, to 7mm long. K467; 1-1150m; VII-XI *
Acacia-Commiphora bushland.

12. *Clerodendrum melanocrater* Gürke
Climber 3-6m. Leaves opposite, ovate or elliptic, base rounded, apex shortly acuminate, 5-18 by 2-10cm, glabrous; drying black. Flowers white or cream, in



Clerodendrum incisum *Clerodendrum johnstonii*

*Clerodendrum makanjanum**C. myricoides**Clerodendrum rotundifolium**C. sansibarense*

terminal panicles to 12cm long; corolla tube 5-6mm, lobes 1-2mm long. Fruit black, occasionally 2-4-lobed, to 9mm long.

K5; Kakamega Forest; 1550-1650m; X *

13. *Clerodendrum myricoides* (Hochst.) Vatke (incl. *C. discolor* (Klotzsch) Vatke, *C. scheffleri* Gürke, *C. ugandense* Prain)

Shrub 1-3.5m. Leaves opposite or in threes/fours, ovate or slightly obovate, base cuneate or attenuate, apex acute, margin toothed or rarely entire, to 11 by 5cm, pubescent to almost glabrous beneath. Flowers blue or purple, occasionally greenish with one lobe blue, or blue with two lobes white; in lax panicles; corolla tube 5-10mm, lobes 8-17mm long. Fruit black, to 8mm long.

K1234567; 150-2400m; I-XII

(Secondary) dry or semi-evergreen bushland, bushed grassland, or wooded grassland; often on rocky sites. Butterfly bush (STAND), Mara-sisa (BOR), Mun-guya, Muvweia (KAM), Munjugu (KIK), Chesamisiet, Obetiot (KIP), Shikuma (LUO), Ol-magotogot (MAA), Chebobet, Chesagon (MAR), Makutukuti (SAM), Gobetie (TUG). A root decoction is used as an emetic, against malaria and VD.

14. *Clerodendrum robecchii* Chiov.

(*C. microphyllum* Thomas)

Shrub 1-3m. Leaves opposite, ovate-spathulate, base cuneate or attenuate, apex obtuse, to 2.5 by 1.5cm, occasionally 3-lobed or crenate-serrate, sandpapery and glandular. Flowers white, in few-flowered terminal heads; corolla tube 12-14mm, lobes 4-6mm long. Fruit black, unlobed to 4-lobed, to 7mm long.

K1; once collected 50 km W of Ramu (Lagh Olla) at 580 m.

Acacia-Commiphora bushland.

15. *Clerodendrum rotundifolium* Oliv.

Shrub 0.5-3.5m. Leaves (sub-)opposite or in threes, (broadly) ovate, base rounded or subcordate (rarely broadly cuneate), apex acuminate, margin entire or crenate, 6-23 by 4.5-18cm, pubescent. Flowers white, in few-flowered panicles; corolla tube 62-118mm, lobes 10-16mm long. Fruit to 12mm long.

K3456; 1200-2150m; I-X, XII

Wooded grassland, riverine woodland.

Kochutoi (KIP), Sangla-minwa (LUO), Osingarwa (MAA).

16. *Clerodendrum sansibarense* Gürke

ssp. *sansibarense*

(Climbing) shrub 2-6m. Leaves ovate or elliptic, base attenuate, apex acuminate, margin entire or crenate, 4-21 by 2-11cm, glabrous or sparsely puberulous. Flowers greenish white, with one mauve or blue-green lobe, in axillary dichasial cymes, forming pyramidal leafy inflorescences to 20 by 20 cm; corolla tube 8-10mm, lobes 8-9.5mm long. Fruit reddish black, depressed round, 6-7 by 7-11mm.

K7; 50-400m; IV *

Forest (edge) or secondary grassland, seashore.

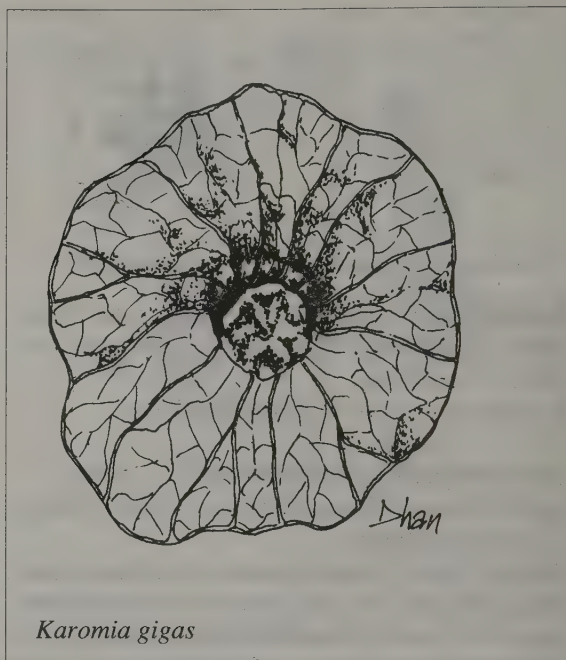
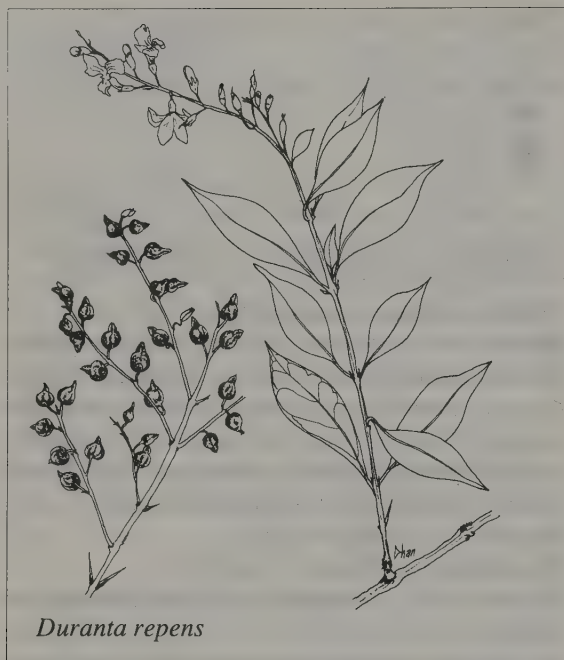
Note. I am uncertain about the identity of *C. dalei* Moldenke, based on Dale K3811, a specimen with young buds from K7, Ganda forest. The leaf margins occasionally have 1-2 teeth.

3. DURANTA

Duranta erecta L.

(*Duranta repens* L.)

Shrub or tree, 1.8-4.5m, evergreen; branches often with axillary spines 2-14mm. Leaves opposite, occasionally crowded on spur shoots, elliptic, base cuneate, apex acute or obtuse, margin entire or crenate, 2-6 by 1-3cm, glabrous. Flowers mauve-blue or white, in terminal racemes; corolla tube 7-10mm, lobes 2-6mm

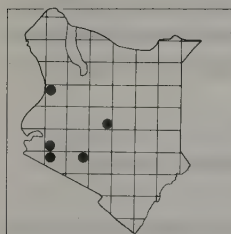


long. Fruit a yellow or orange drupe with a conical beak, 5-7mm across.

K2456; 1200-1950m; II-V, X *

Cultivated and gone wild in (riverine) forest.

Golden dew drop, pigeon berry (STAND).



Duranta repens

4. KAROMIA

Trees or shrubs. Calyx very spreading, accrescent, obscurely lobed. Corolla with incurved tube and oblique lobes.

Karomia gigas (Faden) Verdc.

(*Holmskioldia gigas* Faden) **FEARED EXTINCT**
Tree 12m; bark tan, peeling. Leaves ovate-orbicular, base shortly cuneate, apex abruptly acute, 15-22 by 11-18cm, glabrous. Flowers not known. Fruit with

accrescent calyx 5.5-6.5cm across.

K7, found at Mwarakaya, in forest remnant on limestone; the only known specimen was cut down about 1983.

5. LANTANA

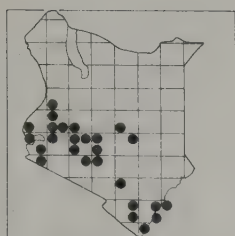
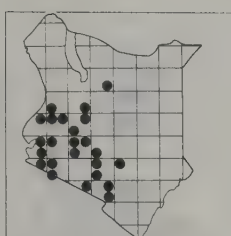
Shrubs or woody herbs. Leaves opposite or in threes. Flowers in peduncled axillary spikes, dense. Corolla 5-lobed, slightly 2-lipped. Fruit a fleshy drupe.

NOTE: hybrids (intermediates) between *L. trifolia* and *L. viburnoides* occur.

- | | |
|--|---------------------------|
| 1. Stems prickly | 1. <i>L. camara</i> |
| * Stems not armed | 2 |
| 2. Corolla white | 4. <i>L. viburnoides</i> |
| * Corolla mauve or purple | 3 |
| 3. Corolla 3-7mm across at apex; peduncle 10-105mm | 3. <i>L. trifolia</i> |
| * Corolla 1-2mm across at apex; peduncle 5-23mm | 2. <i>L. rhodesiensis</i> |

1. *Lantana camara* L.

(Scrambling) shrub 1-5m; stems with many small recurved prickles. Leaves opposite or in threes, aromatic, ovate, base rounded or cuneate, apex acute, margin serrate, 3-9 by 2-5cm, sandpapery. Flowers yellow or mauve, to about 1cm long. Fruit black, to

*Lantana camara**Lantana rhodesiensis*

8mm long.

K34567; 1-1900m; I-XII

Introduced, now a serious weed on roadsides and in secondary vegetation.

Mjasasa (DIG), Kitavisi (KAM), Mukenia (KIK), Nyamrih (LUO), Getipkamoskon (TUG). Leaves poisonous to livestock.

2. *Lantana rhodesiensis* Moldenke

Woody herb or shrub 0.3-1.8m. Leaves opposite or in threes, ovate, base cuneate, apex acute, margin serrate, 1-8 by 0.5-3.5cm, sandpapery above, pubescent beneath. Flowers mauve or purple, sometimes with a yellow throat; peduncle 5-23mm; corolla tube 3-5mm, lobes 1-1.5mm. Fruit blue or purple.

K13456; 900-2100m; I-X, XII

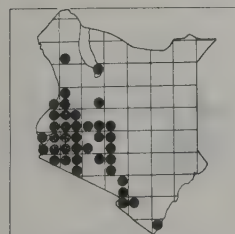
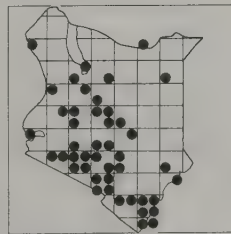
Bushland, secondary bushland, or wooded grassland Muthio (KAM), Mukenia (KIK), Bek-ap-torit (KIP), Enguruma-olaiyok (MAA). Fruit edible.

3. *Lantana trifolia* L.

Woody herb or shrub 0.3-3.6m. Leaves in threes (rarely opposite on weak shoots) ovate, base cuneate, apex acute, margin serrate, 1.5-12 by 0.7-4cm, sandpapery above, densely pubescent beneath. Flowers mauve, purple, or pink, often with a yellow throat; peduncle (10) 25-105mm; corolla tube 4-7mm, lobes 2-3mm long. Fruit red or purple.

K1234567; (300) 900-2350m; I-XII

Bushland, secondary bushland, bushed grassland, dry

*Lantana trifolia**Lantana viburnoides*

forest (margins), wooded grassland, ruderal.

Mvepe (SWA), Kate (BOR), Muvisavisi (KAM), Mukenia (KIK), Bek-ap-torit (KIP), Lumenenambuli (LUH), Magwaga, Nyabend-winy (LUO), Ol-magir-igiriana, Ol-makongora (MAA), Chemosong, Kogumbosuwa (MAR), Peptarit, Petiapteriet (NAN), Sekechewo (TUG). Fruit edible.

4. *Lantana viburnoides* (Forssk.) Vahl

(incl. *Lippia somalensis* of UKWF)

Woody herb or shrub 0.4-3.5m. Leaves opposite, ovate, base cuneate or attenuate, apex acute or obtuse, margin serrate, 0.8-11 by 0.4-5cm, sandpapery above, pubescent beneath. Flowers white (rarely pale pink) often with a yellow throat. Fruit purple.

- ssp. *viburnoides*

Leaves 1-11 by 0.5-5cm; peduncle 10-100mm; corolla tube 4-8mm, lobes 1-3mm long.

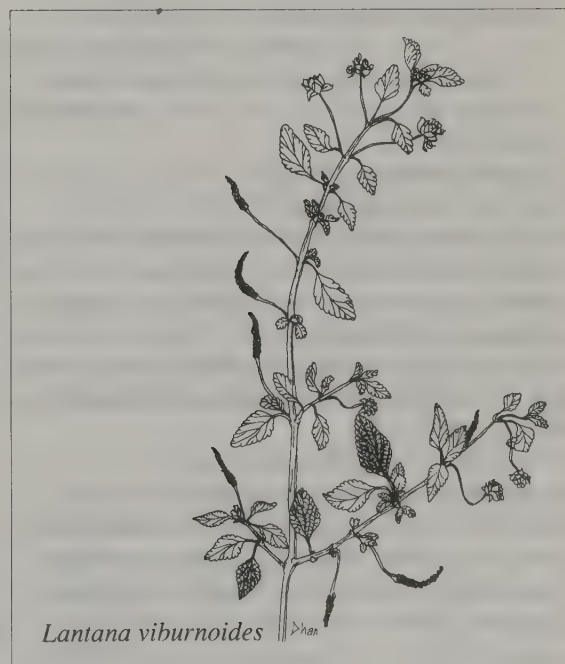
K1234567; 1-1950m; I/VI, VIII-XII

(Secondary) bushland, often in rocky sites; also in forest margins and wooded grassland.

Mverde (SWA), Kashomoro (GIR), Lokuru (NJE), Muudi (TAI).

- ssp. *masaica* Verdcourt ined.

Leaves < 3 by 1.6cm; peduncle < 1cm; inflorescence < 1cm.

*Lantana viburnoides*

K4, in dry bushland and wooded grassland.

- ssp. *humuliformis* Verdcourt ined.

Inflorescence strobiliform, hop-like.

K47, in dry bushland.

6. LIPPIA

Shrubs or woody herbs. Leaves opposite or verticillate, glandular. Flowers in pedunculate, crowded spikes; corolla obscurely 2-lipped, with 3 lobes. Fruit of 2 dry mericarps; each 1-seeded, very small.

1. Leaves lobed or deeply crenate 2. *L. dauensis*

* Leaves shallowly crenate 2

2. Lower bracts of inflorescence more than twice as wide as upper bracts 3

* Lower bracts similar to upper bracts 5

3. Leaves sandpapery on both sides, corolla 4-lobed 4

* Leaves pubescent beneath, corolla 5-lobed

(5.4) *Lantana viburnoides*

4. Leaves up to 2.5 by 2.5cm, broadly elliptic

6. *L. somalensis*

* Leaves up to 12 by 4.5cm, much longer than wide

5. *L. kituiensis*

5. Leaves up to 4cm long; fruiting bracts much enlarged

1. *L. carviadora*

* Leaves usually larger; fruiting bracts less than 5mm wide 6

6. Spikes less than 6mm across, bracts erect

4. *L. javanica*

* Spikes more than 6mm across, bracts spreading

3. *L. grandifolia*

1. *Lippia carviadora* Meikle

(incl. var. *minor* Meikle)

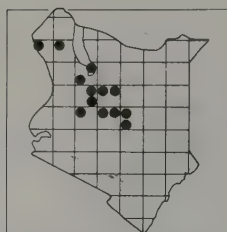
Shrub 0.5-2m. Leaves opposite, aromatic, (broadly) ovate, base cuneate to almost truncate, apex obtuse or rounded, margin crenate, up to 4 by 2.7cm, scabridulous above, puberulous beneath. Flowers white with yellow throat, in shortly pedunculate heads; corolla tube to 4mm long. Fruiting bracts much enlarged, to 13 by 15mm.

K1234; 500-1150m; III-V, XI *

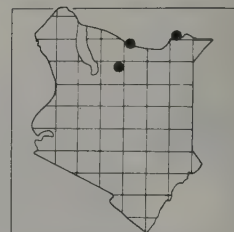
Dry bushland or bushed grassland.

Galafu (REN), Leminyani (SAM), Ged hamu (SOM), Eure (TUR). Used for tea by Turkana and Somali.

Note. Two records from Kilifi (Jeffrey H 12/49 and H 21/49) are probably from cultivated specimens.



Lippia carviadora



Lippia dauensis

2. *Lippia dauensis* (Chiov.) Chiov.

Shrub 0.5-1.5m. Leaves opposite, slightly aromatic, lobed to subentire, ovate or elliptic, base attenuate, apex acute or obtuse, margin (if not lobed) deeply crenate, to 4.5 by 2cm but mostly much smaller. Flowers white, in long-pedunculate heads 5-8mm long; corolla tube about 2mm long.

K1; 500-900m; V, VIII-IX *

Dry bushland or bushed grassland.

3. *Lippia grandifolia* A.Rich.

Shrub 0.5-1.8m. Leaves opposite, in threes or in fours, ovate or elliptic, base cuneate, apex acute, margin crenate, 3-9 by 1-2.5cm (smaller near end of flowering branch), sandpapery on both sides. Flowers white or cream, in short- or long-peduncled spikes 1-2.5cm long. Corolla tube 2.5-3.5mm long.

K345; 750-2250m; III, VIII-IX, XI *

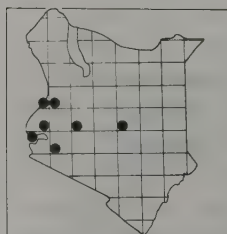
Disturbed forest or wooded grassland.

4. *Lippia javanica* (Burm.f.) Spreng

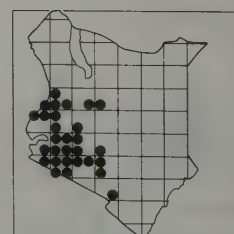
Shrub 0.5-3m. Leaves opposite (rarely in threes), aromatic, ovate or elliptic, base cuneate, apex acute, margin crenate, 2-8 by 0.6-3cm, sandpapery above, pubescent beneath. Flowers white or cream with yellow throat, in short-peduncled (rarely long-stalked) crowded spikes 0.5-1cm long; corolla tube about 2mm long.

K123456; 1050-2300m; I-XII

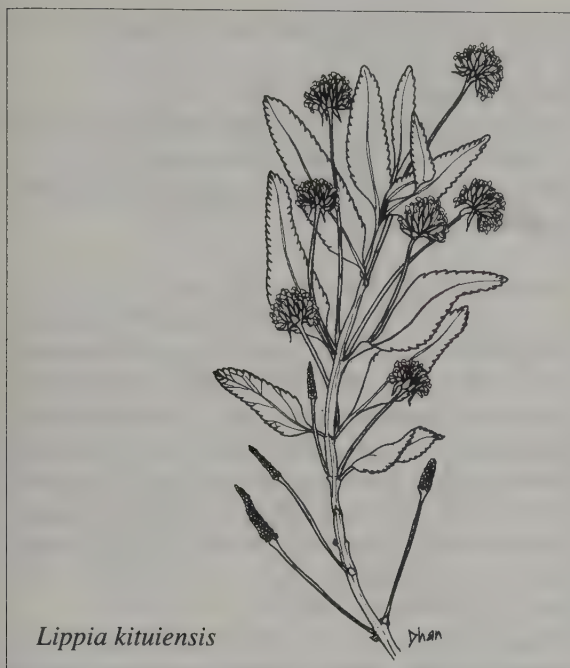
Locally abundant in secondary bushland or grassland;



Lippia grandifolia



Lippia javanica



less often in wooded grassland.

Muthoroti (KIK), Mwokyot (KIP), Onyinkwa (KIS), Angwe rao, Mweny (LUO), Sulasula (LUH), Olsinoni (MAA), Mwokio (MAR), Chepngosoriet (NAN), Sunoni (SAM), Karnet (SEB). A problem in rangeland pastures.

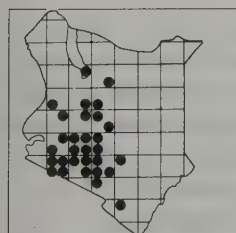
5. *Lippia kituiensis* Vatke

(*L. ukambensis* Vatke sensu Baker et al.)

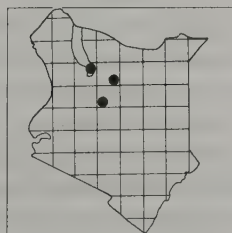
Shrub 0.5-3.6m. Leaves opposite, (rarely in threes), aromatic, ovate or elliptic, base cuneate, apex acute or obtuse, margin crenate, 2-12 by 0.8-4.5cm, sandpapery on both sides. Flowers white with yellow throat, in long-pedunculate crowded spikes 0.5-1.5cm long; corolla tube 2-4mm long; fruit red.

K1234567; 900-2550m; I-XII

(Bushy) grassland, (secondary) bushland; a problem



Lippia kituiensis



Lippia somalensis

in rangeland.

Muthiethi, Muthirithi (KAM), Muthirithi (KIK, MER), Mwokiot (KIP), Mosonyon (PKT), Sinoni (SAM). Fruit edible. Leaves sometimes used for tea.

6. *Lippia somalensis* Vatke

Shrub 0.5-3m. Leaves opposite, aromatic, (broadly) elliptic, base cuneate, apex acute or rounded, margin crenate, to 2.5 by 2.5cm, sandpapery on both sides. Flowers white with yellow throat, in long-pedunculate crowded spikes 0.5-1.5cm long; corolla tube 3-4mm long.

K1; 1350-1750m; I, IV, VI, VIII, XI *

Forest (margins) and bushy grassland.

Suruni (SOM).

7. PREMNA

Shrubs or trees. Leaves opposite or verticillate. Flowers in terminal (rarely axillary) panicles; corolla small, 4-lobed. Fruit a small globose or ellipsoid drupe with a thin fleshy outer skin and an enlarged calyx.

1. Moist forest trees to 30m, found above 1000m

2

* Dry area shrubs or coastal plants, or found below 1000m

3

2. Leaves glabrous, in fours **1. *P. angolensis***

* Leaves pubescent at least on midrib, opposite or in threes

4. *P. maxima*

3. Leaves glabrous or almost so

4

* Leaves quite hairy

5

4. Leaves 6-15 by 3.5-12cm, with entire margins

5. *P. obtusifolia*

(Also keying out here: *P. discolor*, a new species from Diani and Cha Simba forest)

* Leaves either smaller, or crenate at margin

6. *P. resinosa*

5. Leaf hairs stellate, inflorescence dense

2. *P. chrysoclada*

* Leaf hairs simple; inflorescence lax

6

6. Leaves long-petiolate (usually > 3cm)

3. *P. hildebrandtii*

* Leaves with petioles less than 2cm long

7

7. Leafbase subcordate or rounded; branchlets densely yellowish-hairy

8

* Leafbase cuneate or rounded; branchlets sparsely pubescent

6. *P. resinosa*

8. Inflorescences lax, to 4cm

8. *P. velutina*

* Inflorescence < 1cm long

7. *P. senensis*

Note: a very recent find is *P. gracillima* Verdcourt ined., a new species from Mangea (Coast) based on Luke & Robertson 1820. It is near *P. resinosa*, but has leaves with 2-3 teeth, and the inflorescence is overtopped by the leaves.

1. *Premna angolensis* Gürke

Tree to 20m. Leaves in fours, ovate, base cuneate or rounded, apex acuminate, margin entire, 7-18 by 4-9cm, glabrous. Flowers white, in loose axillary or terminal panicles, 5-20cm long; flowers 3-4mm long. Fruit ellipsoid with acute apex, 5-6mm long.

K5; collected in and around Kakamega forest (3 times, before 1935) and near Molo; 1550-2100m; IV-V *

Forest margins or clearings.

Muhorro (TRADE), Mungaliguru, Kisangula (LUH).

2. *Premna chrysoclada* (Boj.) Gürke

Shrub or small tree 1-4.5m. Leaves opposite, elliptic, base cuneate or rounded, apex acuminate, margin serrate or entire, 5-11 by 1.5-5cm, stellate-hairy, sometimes densely so beneath. Flowers greenish yellow, in (rather) dense terminal panicles 1-4cm long; flowers 3-6mm long. Fruit (purple-) black, ellipsoid, 4-8mm long.

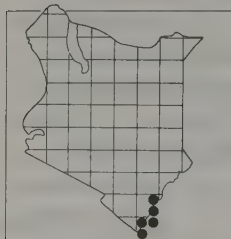
K7; 1-450m; I, IV-VIII, XII *

Moist forest, forest edges, woodland, thicket and (secondary) bushland.

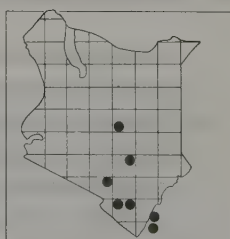
Mvuma-nyuki (SWA), Mvuma (DIG, GIR). Root decoction used against dysentery and kidney trouble; stems used for bows; fruit edible.

3. *Premna hildebrandtii* Gürke

Shrub or small tree 3-6m or climber to 12m. Leaves opposite, long-petiolate, broadly ovate, base rounded or subcordate, apex acuminate, margin serrate or entire, 4-12 by 4-10cm, densely pubescent; venation palmate, 3-5 veined from base. Flowers yellow-green or white, in loose terminal panicles 4-14cm long;



Premna chrysoclada



Premna hildebrandtii

flowers 4-5mm long. Fruit black, ellipsoid, to 7mm long.

K47; 1-1000m; I, III, VI *

Inland in riverine or groundwater forest, on the coast in bushland, thicket or dry forest on coral.

Murusupungu (GIR). Root decoction used against stomachache.

4. *Premna maxima* T.C.E. Fries

RARE, ?VULNERABLE

Tree 12-30m, buttressed. Leaves opposite or in threes, long-petiolate, broadly ovate or elliptic, base broadly cuneate, rounded or subcordate, apex acuminate, margin entire (rarely slightly dentate -when young?), 6-19 by 4-16cm, densely pubescent beneath to almost glabrous (except midrib). Flowers cream, in lax terminal panicles 12-20cm long; flowers 3-5.5mm long. Fruit purple, to 3mm (young).

K14; 1150-1800m; I, III, VI *

Moist evergreen forest, near Meru and Marsabit.

Muchichio (KIK, MER). Timber rather hard, used in carpentry; the wood contains oil.

5. *Premna obtusifolia* R. Br.

(*P. corymbosa* sensu Moldenke, non Rottl. & Wild.)

Shrub (climber?) to 4m. Leaves opposite, elliptic, base rounded or cuneate, apex obtuse or very shortly and bluntly acuminate, margin entire, 6-15 by 3.5-12cm, glabrous; glandular beneath. Flowers greenish or whitish, in rather dense terminal panicles 2-8cm long; flowers 2-3mm long. Fruit black, ellipsoid, to 4mm long.

K7; 1-400m; V, VIII, XI *

Seashore near highwater mark, riverine forest, thicket edge (S coast only).

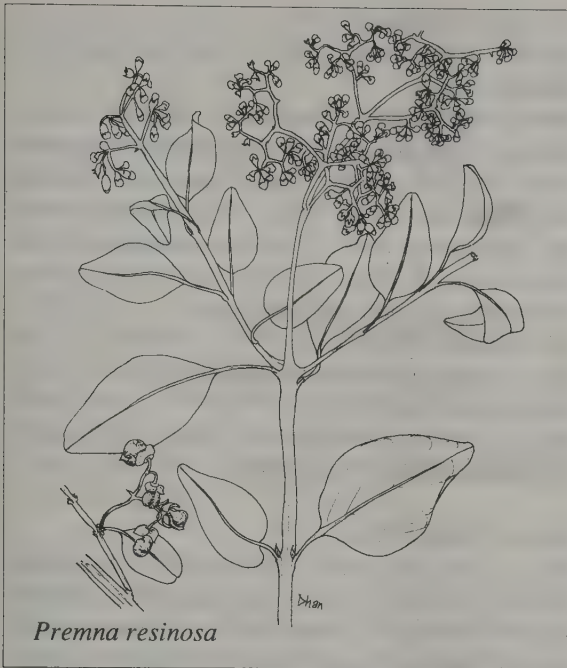
Mbarafu (DIG). An infusion of the leaves is used against headache by the Digo.

6. *Premna resinosa* (Hochst.) Schauer

(incl. *P. holstii* Gürke)

Shrub 1-4.5m; older stems square. Leaves opposite, aromatic, ovate or (broadly) elliptic, base cuneate or rounded, apex rounded, acute, or acuminate, margin entire or crenate, up to 7(10) by 4(8)cm, almost glabrous. Flowers (greenish) cream or white, in lax terminal panicles 1.5-6cm long; flowers 3-6mm long. Fruit purple to black, ellipsoid, 4-7mm long.

- ssp. *resinosa*: leaves up to 3.5 by 2cm, usually with



entire margins and with some hairs on midrib, veins and margins.

K12347; 1-1050m; I-VI, VIII-XII (XI-XII)

Dry bushland, bushed grassland; may be common or locally dominant.

Dadessa, Tatessa (BOR), Mukaakaa (KAM), Olmakarikara (MAA), Kate-dimtu (ORM), Kekechwo (PKT), Namaniela (REN), Lemaloni (SAM), Djadjallah, Gradha-gradha (SOM), Mugamia (TAI), Kekech (TUG), Ikorderedet (TUR).

- ssp. *holstii* (Gürke) Verdc. ined.: leaves mostly larger, up to 7 by 4 (10 by 8)cm, usually with crenate margins, and pubescent to almost glabrous beneath. Flowers often with a purple patch in the throat.

K1467; 1-1950m; I-VIII, XI-XII

Inland in dry bushland or thickets, common to locally abundant; more rare on the coast, in (evergreen) thickets.

Mvumba-ngombe (SWA), Mursapungu (DIG), Mkitsano (GIR), Mugambia (TAI). Fruit edible.

NOTE: I understand from Dr. Verdcourt that he sees *P. oligotricha* as separate; the easiest way to distinguish these two is by the leaf indument: specimens with pubescent leaves are *P. oligotricha*, and occur in more or less the same area as *P. resinosa*; the map for *P. resinosa* covers both these species.

7. *Premna senensis* Klotzsch

Shrub 2-5m. Leaves aromatic, often in whorls of 3, ovate or elliptic, base truncate or subcordate, apex acuminate, margin entire or toothed, 2-8.5 by 1.5-3.5cm, sparsely or densely pubescent. Flowers white, on short lateral shoots; corolla 6-6.5mm long. Fruit black or dark violet, round, 3.5-6mm.

K7, Shimba Hills.

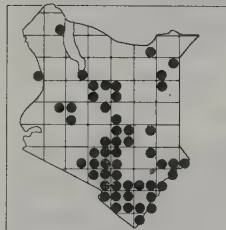
8. *Premna velutina* Gürke

Shrub or scrambler 0.5-5m. Leaves opposite, (broadly) ovate or elliptic, base rounded or subcordate, apex acute, (rarely obtuse), margin entire or crenate, 2-8 by 1.5-5cm, densely short-pubescent beneath and on the midrib above. Flowers white, in lax terminal panicles 1-4cm long; flowers 4-5mm long. Fruit orange (to black?), ellipsoid, 4-6mm long.

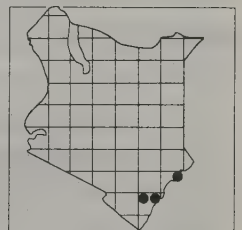
K7; 1-300m; II, IV, VIII, X *

Inland along rivers; on the coast in forest margin or wooded grassland.

Modya-tudu (ILW), Manocha (ORM).



Premna resinosa



Premna velutina

8. VITEX

Trees, shrubs or climbers with square branches. Leaves opposite, 3- to 5-foliolate, mostly with long petioles; leaflets unequal. Flowers with 5 lobes; lobes unequal, the middle lower lobe being the largest. Calyx enlarging in fruit. Fruit a drupe.

1. Leaves with winged petiole **9. *V. zanzibarensis***
- * Leaves with round petiole **2**
2. Leaves completely glabrous (Western Kenya and south coast) - rarely with few hairs on midrib **1. *V. doniana***
- * Leaves at least beneath (slightly) hairy **3**
3. Leaflets sessile **4**
- * Leaflets (at least the terminal one) stalked **5**
4. Leaf buds with brownish hairs <1mm; inflorescence 3-5cm long **5. *V. mombassae***

- * Leaf buds with whitish hairs >3mm; inflorescence 6-18cm long **6. *V. payos***
- 5. Leaflets usually sandpapery above, or plants from West Kenya **6**
- * Leaflets glabrous or pubescent above, coastal plant **8**
- 6. Leaflets 3 **7. *V. strickeri***
- * Leaflets 5(6) **7**
- 7. Tree 3-15m of wooded grassland and forest margins (west Kenya) **3. *V. fischeri***
- * Tree 12-30m of moist forest (central Kenya) **4. *V. keniensis***
- 8. Leaves silvery grey beneath; flowers and fruits 3-5mm long **8. *V. trifolia***
- * Leaves greenish beneath; flowers 8-14mm long, fruit 15-30mm long **9**
- 9. Leaflets glabrous above; lateral leaflets stalked **2. *V. ferruginea***
- * Leaflets pubescent above; lateral leaflets (sub)sessile **5. *V. mombassae***

Note: not keyed out is *Vitex schliebenii* Moldenke: Steiner & Gerhardt 222, V. de Meester 330; from K7 near Gedi.

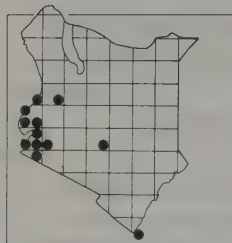
1. *Vitex doniana* Sweet

Tree 3.5-15m, deciduous; bark rough, dark grey. Leaves 5-foliolate; leaflets obovate, apex rounded or short-acuminate, terminal leaflet 7-15 by 3-9cm; glabrous. Flowers whitish with 1 large mauve lobe, in axillary dichasia 3-9cm long; corolla 5-10mm long. Fruit black, ellipsoid, 15-30mm long.

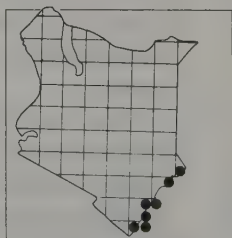
K23567; (1) 1200-1900m; I-II, IV-V, XII *

Wooded grassland or forest edge.

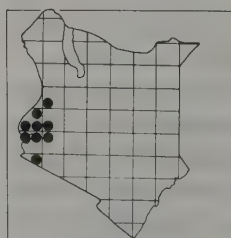
Black plum, vitex (STAND), Mfundu (SWA), Muhuru (KIK), Muekelwet (KIP), Mutahuru (KIS), Jwelo, Kalembe (LUO), Muholu, Omuhutu (LUH), Tirkirwa (PKT). Fruit edible; wood used for carpentry, dhow ribs, small canoes and housebuilding.



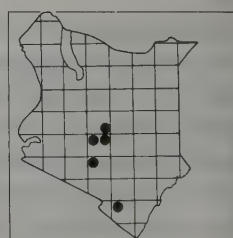
Vitex doniana



Vitex ferruginea



Vitex fischeri



Vitex keniensis

2. *Vitex ferruginea* Schum.

(incl. *V. amboniensis* Gürke, *V. carvalhi* Gürke, *V. tangensis* Gürke)

Shrub or tree 1.5-6m. Leaves 3-5-foliolate; leaflets (narrowly) elliptic, apex shortly acuminate; terminal leaflet 5-14 by 2-4cm; finely pubescent beneath, sometimes only on the veins. Flowers whitish with one large mauve lobe, in axillary dichasia 1.5-6cm long; flowers 8-10mm long. Fruit greyish, speckled with white, globose, 15-25mm long.

K7; 1-400m; I, III-VI, XI

Forest (margin), secondary bushland or thicket, evergreen coastal bushland.

Mgegi (SWA), Mkaligote (BON), Mfududu, Mfudumaji (GIR). Fruit edible.

3. *Vitex fischeri* Gürke

Tree 3-15m; bark grey. Leaves 5-foliolate; leaflets elliptic or slightly obovate, apex shortly acuminate, terminal leaflets 9-21 by 4-9cm; slightly sandpapery or rarely glabrous above, densely pubescent beneath. Flowers white or pale mauve, with lower lip darker mauve, in axillary dichasia 5-24cm long. Flowers 6-8mm long. Fruit purple to black, oblong-globose, 8-12mm long.

K356; 1200-1900m; I-VII, X, XII *

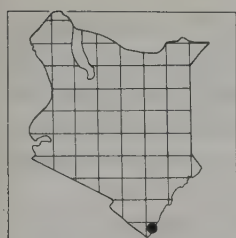
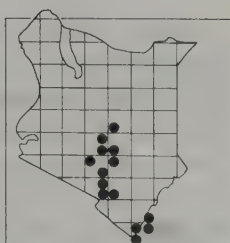
Wooded grassland, less often in forest margins.

Jwelo (LUO), Mufutumwe, Muhutu (LUH), Omuhuruhuru (WAT). Fruit edible.

4. *Vitex keniensis* Turrill

(*V. balbi* Chiov.)

Tree 12-35m with long clear bole; bark grey, slightly fissured. Leaves 5-foliolate; leaflets elliptic, base often unequal, apex short-acuminate, terminal leaflet 9-21 by 3.5-10cm; slightly sandpapery above, densely pubescent beneath. Flowers white or purplish, with largest lobe dark mauve, in axillary dichasia 12-18cm long; flowers 7-8mm long. Fruit black, ellipsoid, 13-

*Vitex mombassae**Vitex payos*

16mm long.

K4 (?7, see note); 1300-2100m; II-III, V, XI *

Moist evergreen forest.

Meru Oak (TRADE), Muuru, Moru (MER). Excellent timber.

Note: Taita Hills expedition no. 466 from Ngangao Forest is believed to be this species.

5. *Vitex mombassae* Vatke

Shrub or tree 1.8-6m. Leaves 3-5-foliolate; leaflets elliptic or slightly obovate, apex short-acuminate or acute, terminal leaflet 4-12 by 1.5-4.5cm; pubescent, especially beneath. Flowers white with lower lobe mauve, or all mauve, in axillary dichasia 3-5cm; flower 8-14mm long. Fruit black, globose, 23-30mm across.

K7; 1-450m, II-III, IX *

*Vitex strickeri*

(Clump) wooded grassland or woodland/bushland. Mfundu maji (SWA), Mdudumadzi (DIG), Mkalijote (BON), Mfudukoma (DIG), Mkufu, Mfududu (Galla). Fruit edible.

Note. Kuchar 12891 from Kiunga is intermediate between this species and *V. ferruginea*.

6. *Vitex payos* (Lour.) Merr.

Tree or much less often shrub 2-9m; bark deeply fissured. Leaves 5-foliolate; leaflets obovate, apex rounded, obtuse or subacute; terminal leaflets 7-20 by 3-9cm; slightly pubescent above, tomentose beneath. Flowers mauve or white with largest lobe dark mauve, in axillary dichasia 6-18cm long; flowers 6-9mm long. Fruit black, globose or ellipsoid, 14-20mm long.

K47; 1-1200m; III, V, XI-XII *

Wooded grassland or clump tree grassland, inland also on rock domes.

Mfufu (SWA), Mfudu (DIG), Kimuu (KAM). Fruit edible; a minor timber.

7. *Vitex strickeri* Vatke & Hildebr.

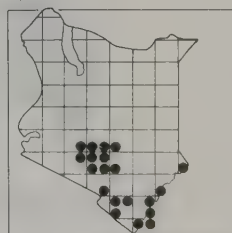
(Incl. *V. lamiana* Pieper)

Shrub or climber 1-9m. Leaves trifoliate; leaflets ovate, apex acuminate, margin toothed or entire; terminal leaflet 3-10 by 1.3-5.5cm; sandpapery above, more or less pubescent and glandular beneath (to almost glabrous). Flowers white, pale yellow near tip of lobes, in terminal and axillary panicles 1-8cm long; flowers 3-5mm long. Fruit black, globose, 3-8mm long.

K467; 1-1800m; I-V, IX-XI

Wooded grassland, (secondary) bushland; on the coast also in dry or moist forest.

Mvumba (SWA), Mfudu koma (DIG), Mukichano (GIR), Mwalika (KAM), Mukakinga (KIK), Mugombo (TAI). Fruit edible; wood used to make arrows by the Taita.

*Vitex strickeri*

8. *Vitex trifolia* L. var. *bicolor* (Willd.) Moldenke
(*Vitex negundo* L.)

Shrub or tree 1-9m. Leaves 3-5-foliolate; leaflets silvery-green beneath, apex acuminate; terminal leaflet 5-10 by 1.5-3cm; minutely but densely pubescent beneath. Flowers mauve, in terminal (sometimes also axillary) panicles 3-10cm long; flowers 3-5mm. Fruit 3-5mm long.

K7; near sealevel; V, X-XI *

An exotic from Asia occasionally gone wild in shore vegetation (Kilifi, Mombasa, Diani, Shimoni).

9. *Vitex zanzibarensis* Vatke

RARE

A large forest tree. Leaves trifoliolate with a winged petiole, the petiole auriculate at base.

K7; forest at Gogoni and Kinondo.

263.A. CYCLOCHEILACEAE

Leaves simple, exstipulate, (sub-)opposite. Flowers solitary, axillary, with conspicuous bracteoles. Calyx absent. Corolla 5-lobed. Fruit compressed, breaking up into 2 mericarps.

***Asepalum eriantherum* (Vatke) Marais**

[*Cyclocheilon eriantherum* (Vatke) Engl.]

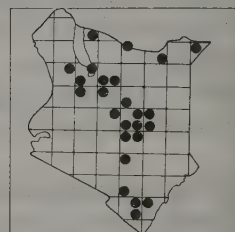
Shrub 0.5-3m, occasionally scrambling; bark white or

pale grey, fibrous and peeling. Leaves seemingly fascicled, but on shoots which elongate after flowering, narrowly obovate, base cuneate, apex acute, 5-25 by 1.5-6mm, fleshy, hairy. Flowers white, enclosed at base by two large bracteoles, these flushed with purple; corolla white, 14-17mm long. Fruit 2-3mm.

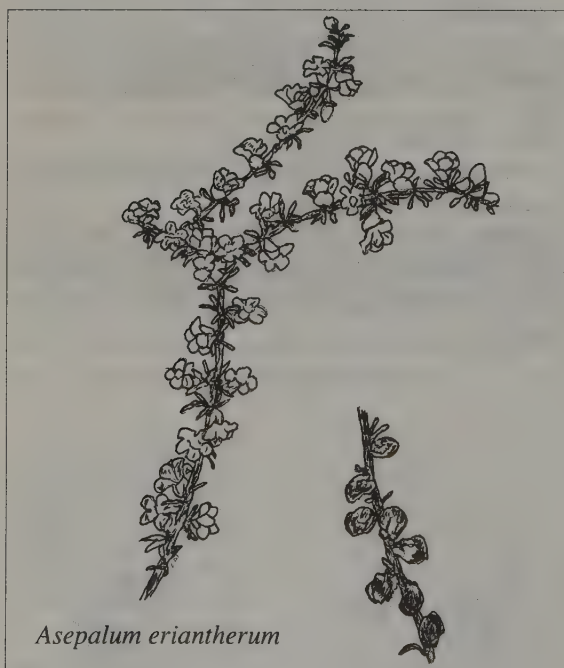
K1247; 200-1150m; III-V, VII, IX-XII (V, XI-XII)

Dry deciduous bushland, where it may be abundant near luggas; also dwarf bushed grassland.

Yirinoth (BOR), Lororoi (SAM), Gurbi, Hirin (SOM), Angog (TUR). An infusion of all parts is used against backache by the Boran.



Asepalum eriantherum



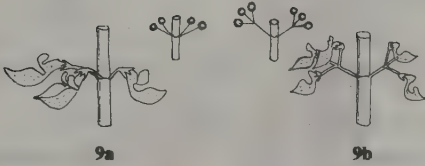
Asepalum eriantherum

264. LABIATAE / LAMIACEAE

Herbs or shrubs, often with square stems. Leaves opposite, often aromatic. Flowers usually bisexual; corolla zygomorphic, 2-lipped; stamens 2-4; style emerging from the base of the ovary. Fruit of 4 small nutlets, mostly hidden in the persistent calyx.

- | | |
|--|-------------------------|
| 1. Plant flowering when leafless | 2 |
| * Leaves and flowers present | 5 |
| 2. Flowers secund (all pointed to one side),
corolla 4-7mm long | 2. <i>Englerastrum</i> |
| * Flowers not secund; corolla 10-24mm long | 4 |
| 4. Corolla 10-19mm long; upper calyx lobe flat
and wide | 9. <i>Plectranthus</i> |
| * Corolla 18-24mm long; upper calyx lobe spiny | 10. <i>Pycnostachys</i> |
| 5. Flowers in dense axillary clusters | 6 |
| * Flowers in rather open racemes or panicles
(axillary/terminal) | 7 |
| 6. Calyx teeth hard and spiny; flowers 20-50mm
long, red, orange or white | 5. <i>Leonotis</i> |
| * Calyx teeth soft; flowers 8-24mm long, white | 6. <i>Leucas</i> |
| 7. Calyx with upper lobe much wider than others | 8 |
| * Calyx with upper lobe about equal to others | 13 |
| 8. Corolla tube bent or curved at calyx mouth | 9 |
| * Corolla tube straight | 11 |

9. Flowers in whorls at nodes of inflorescence
 9. *Plectranthus*
 * Flowers in small cymes at nodes of inflorescence (see ill). **10**



10. Leaf base attenuate; corolla about 10mm long
 11. *Solenostemon*
 * Leaf base (sub)cordate; corolla 13-18mm long
 9. *Plectranthus*

11. Corolla 12-17mm long; upper calyx lobe enlarging in fruit, enclosing lower one
 3. *Erythrochlamys*

- * Corolla 6-12mm long; calyx lobes not enlarging **12**
 12. Stamens exserted, longer than corolla
 7. *Ocimum*

- * Stamens included, shorter than lower corolla lip
 8. *Orthosiphon*

13. Calyx with 2 wide lips **13. *Tinnea***
 * Calyx with 4-10 lobes **14**

14. Flowers red, 15-20mm long
 1. *Achyropermum*
 * Flowers different colour, 15mm or less **15**

15. Inflorescence axillary **2. *Englerastrum***
 * Inflorescence terminal (sometimes a few axillary infl. also present) **18**

18. Leaf base subcordate; corolla 2-3mm; flowers dioecious
 12. *Tetradenia*

- * Leaf base cuneate; corolla 4-7mm; flowers monoecious **19**

19. Flowers blue, lilac or purple **20**
 * Flowers white or yellow; fruiting calyx red and fleshy **4. *Hoslundia***

20. Flowers purple or lilac; calyx not spiny
 1. *Achyropermum*

- * Flowers blue or purple; calyx with spine-like teeth
 10. *Pycnostachys*

1. *ACHYROSPERMUM*

Shrubs. Flowers in spike-like inflorescences.

1. Inflorescences axillary, often below the leaves; flowers 15-20mm long **1. *A. carvalhi***

- * Inflorescences terminal; flowers 4-7mm long **2**

2. Stems with almost invisible, appressed hairs

2. *A. parviflorum*

- * Stems with very visible spreading hairs

3. *A. schimperi*

1. *Achyropermum carvalhi* Gürke

(incl. *A. radicans* Gürke) map next page

Shrub 1.5-3.5m. Leaves elliptic, base attenuate, apex acuminate, margin crenate-dentate, 8-20 by 4-9cm, tomentose or slightly pubescent beneath. Flowers red, in axillary racemes 3-6cm long, often below the leaves; corolla 15-20mm long.

K14; 1550-2100m; V-VI, VIII *

Moist forest.

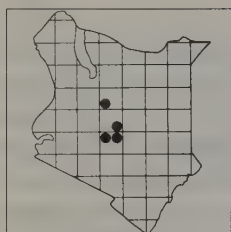
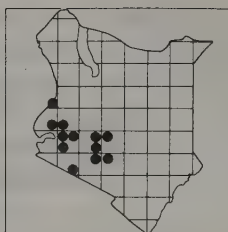
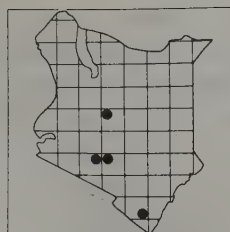
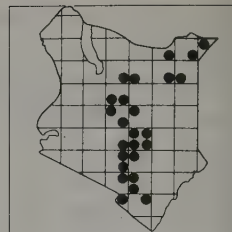
(Ru)muki (KIK).

2. *Achyropermum parviflorum* S.Moore

Climber or shrub 1-2m. Leaves elliptic, base attenuate, apex acuminate, margin crenate, 5-12(18) by 2.5-7(10)cm, slightly hairy beneath. Flowers lilac or pale purple, with a darker lower lip; in terminal inflores-




Achyropermum schimperi

*Achyrospermum carvalhoi**A. schimperi**Englerastrum scandens* *Erythrochlamys spectabilis*

cences (often on short branches) 1.5-4.5cm long; corolla 5-7mm long.

K5, Kakamega forest; X-XII *

Rain forest (margins).

3. *Achyrospermum schimperi* Hochst.  ill. p. 625
Woody herb or shrub 0.5-2m. Leaves elliptic or ovate, base attenuate, apex acute or acuminate, 3-12 by 2-7cm, pubescent. Flowers mauve, pink, or purple, in terminal racemes (1)3-11cm long; corolla 4-7mm long. K3456; 1800-1300m; I-IV, VII-XII

Forest (margins), secondary bushland replacing forest, and riverine vegetation.

Cherungut (KIP).

2. ENGLERASTRUM

Rather like *Plectranthus*, but with axillary inflorescences with more or less secund flowers.

*Englerastrum scandens*

1. Plant trailing or scrambling, rather fleshy-stemmed

1. *E. scandens*

***** Plant erect, with woody stems

2. *E. sp. A*

1. *Englerastrum scandens* (Gürke) Alston

Trailing or scrambling woody herb, with rather fleshy square stems. Leaves broadly ovate or triangular, base almost truncate, apex acute, margin crenate, 1-3 by 0.8-2.8cm, pubescent beneath. Often flowering when leafless; flowers dark purple, second, in racemes or panicles 2-6cm long; flowers 4-7mm long.

K147; 1200-1700m; II, V-VI, VIII-IX *

Riverine bushland and rocky sites.

2. *Englerastrum sp. A*

Shrub 0.9-1.8m. Leaves aromatic, broadly ovate or elliptic, base cuneate or truncate, apex obtuse, margin crenate, up to 4 by 3.5cm, pubescent beneath. Flowers blue or mauve, in terminal and axillary racemes 2-10cm long; flowers 8-15mm long.

K3, in Kenya only known from Mt Suswa, on lava; 1800-2000m; II-III, VI *

3. ERYTHROCHLAMYS

Flowers in terminal racemes. Calyx with large upper lip, enlarging in fruit to enclose the lower lip.

Erythrochlamys spectabilis Gürke

Shrub 0.5-3m. Leaves subsessile, elliptic, base cuneate, apex acute, margin crenate, 4-10 by 1.5-5cm, pubescent beneath. Flowers mauve or whitish with purple markings, in racemes 8-20cm long; flowers with purplish calyx, much enlarged in fruit; corolla 12-17mm long.

K147; 300-1350m; I-VI, VIII-IX, XI-XII

(*Acacia-Commiphora*) bushland or woodland/bushland; may be locally common.

Mukaaka, Mtba (KAM).



JOY

Tabernaemontana
stapfiana, pg 486





JOY

Parquetina nigrescens, pg 495



JOY





JOY



JOY

Dyschoriste thunbergiiflora, pg 602



Achyrospermum carvalhi, pg 625

JOY



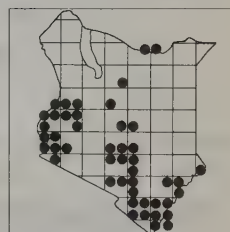
cent. Flowers white or yellowish, in terminal racemes 1-6cm long; corolla 3-6mm long. Fruit with yellow to red fleshy calyx, to 9mm long.

K1234567; 1-2000m; I, III-XII

(Secondary) bushland, bushed or wooded grassland, forest margins and disturbed habitats; not in very dry localities.

Mlanyuni (SWA), Gurguo (BON), Mtserere (DIG), Mutserere (GIR), Musovi (KAM), Cherungut (KIP), Shikuma (LUH), Ofwong'o (LUO), Ol-emoran (MAA), Simbaywa (PKT), Labai (SAM), Mvunde (TAI). Fruit edible; leaves used for tea by Kipsigis and Maasai.

Hoslundia opposita



4. HOSLUNDIA

Hoslundia opposita Vahl

Shrub 0.5-3m. Leaves ovate or elliptic, base cuneate, apex acute, margin serrate, 1-10 by 0.5-4cm, pubes-



5. LEONOTIS

Woody herbs or shrubs with the flowers in dense clusters at the upper nodes; corolla long, pollinated by sunbirds.

1. Leaves ovate, acute at apex 2

* Leaves (sub)orbicular, rounded at apex

1. *L. leonitis*

2. Leaves glabrous or puberulous, with a petiole at least half as long as the leaf

3. *L. nepetifolia*

* Leaves densely pubescent beneath, with a petiole less than half as long as the leaf

2. *L. mollissima*

1. *Leonotis leonitis* (L.) R. Br.

Woody herb to 2.5m. Leaves (sub-)orbicular, base truncate, apex rounded, margin crenate, 1-1.5 by 1-1.5cm, sandpapery above, pubescent beneath. Flowers orange, in clusters 4-5cm across; corolla 33-38mm long.

K4; 1700-1800m; VI, IX * (2 collections seen, Lukenya)

Dry rocky hillsides; locally common.

2. *Leonotis mollissima* Gürke

Woody herb or shrub 1-3m. Leaves ovate, base



truncate or subcordate, apex acute or obtuse, margin crenate, 5-15 by 2-7cm, slightly sandpapery above, densely (often white-) pubescent beneath. Flowers red, orange or white, in 1-4 dense clusters 3-7cm across; corolla 2-3.5cm long.

K123456; 1500-2600m; I-II, V-X (VII-IX); white-flowered form in SW Kenya only.

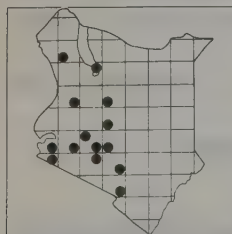
Forest margins, roadsides, disturbed grassland; locally common.

Ezewe (KAM), Mosibit (KIK), Ol-bibi (MAA), Kipsere (MAR). A root decoction is used against stomachache and diarrhoea by the Maasai.

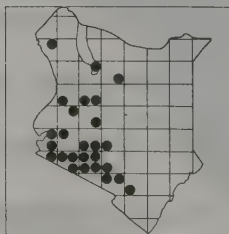
3. *Leonotis nepetifolia* (L.) R.Br.

[incl. *L. africana* (P. Beauv.) Briq.]

Woody herb or shrub 0.7-3m. Leaves ovate, base cuneate to truncate, apex acute to acuminate, margin



Leonotis mollissima



Leonotis nepetifolia

crenate to dentate, 2-9 by 1-6cm, glabrous or puberulous. Flowers cream, orange or red, in 1-4 dense clusters 3-6cm across; corolla 2.3-3cm long.

K123456; 900-2300m; I, III, V-IX, XI-XII (V, VII-IX)

Forest margins and ruderal (waterland, roadsides). Locally common.

Mucii (KIK), Chemosibit (KIP), Ol-bibi (MAA), Kachichin (PKT), Ilkesheni (PKM), Ewat (TUR). Turkana use the roots against stomach trouble.

6. LEUCAS

Herbs or shrubs. Flowers in clusters in the upper axils, always white.

- | | |
|---|--------------------------|
| 1. Leaf margin entire | 5. <i>L. jamesii</i> |
| * Leaf margin toothed, at least near apex | 2 |
| 2. Leaves glabrous or nearly so | 3. <i>L. glabrata</i> |
| * Leaves densely pubescent or tomentose | 3 |
| 3. Leaves crenate/dentate for at least three-quarters of their length; leaves 3-12 by 1-7cm | 4. <i>L. grandis</i> |
| * Leaves crenate-dentate in the upper half only; leaves 1-4.5 by 0.4-2.7cm | 4 |
| 4. Flower bracts less than half the length of the calyx | 5 |
| * Flower bracts more than half of the calyx length | 6 |
| 5. Calyx mouth straight, teeth not bristly; corolla 12-18mm long | 6. <i>L. tomentosa</i> |
| * Calyx mouth oblique, teeth with long bristle-like points; corolla 9-13mm long | 2. <i>L. calostachys</i> |
| 6. Flowers in 5-20 clusters; indument whitish | 2. <i>L. calostachys</i> |
| * Flowers in 2-4 clusters; indument yellowish | 1. <i>L. argentea</i> |

1. *Leucas argentea* Gürke

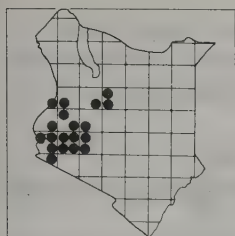
var. *neumannii* (Gürke) Sebold

(*L. sp.* A of UKWF)

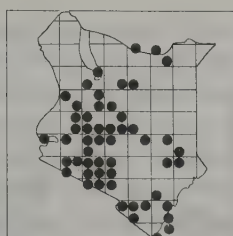
Shrub 1-1.8m. Leaves elliptic or slightly obovate, base cuneate, apex obtuse, margin dentate in upper half, 1-3 by 0.6-2cm, densely golden-tomentose. Flowers white, in dense clusters; corolla 8-11mm long.

K35; 2400-2700m; VI, VIII, X *

Upland grassland or forest margin; also in secondary bushland: Elgon and Cherangani.



Leucas calostachys



Leucas glabrata

2. *Leucas calostachys* Oliv.

var. *fasciculata* (Baker) Sebald

(incl. var. *longibracteolata* Sebald)

Woody herb 0.5-2m. Leaves obovate or elliptic, base cuneate, apex rounded, margin crenate in upper half, 0.8-3.5 by 0.4-2cm, densely tomentose, whitish beneath. Flowers white in many dense axillary clusters; corolla 9-13mm long.

K12356; (1250-) 1600-2800m; I-XII (VII-XII)

Grassland, bushed grassland, wooded grassland; may be common to abundant.

Nabuuru (BUK), Engejenii (MAA), Ngechepchat (KIP), Ngechebgwa, Nechebgwa (MAR), Lumetsani (LUH), Bware (LUO), Lorrbut (DOR), Chepororwa (POK). A leaf infusion is used against stomachache.

3. *Leucas glabrata* (Vahl) R.Br.

(incl. *L. pratensis* Vatke)

Woody herb 0.5-2m. Leaves ovate or elliptic, base cuneate or rounded, apex acute or obtuse, margin crenate-dentate, 1-5 by 0.7-3.5cm, glabrous to sparsely pubescent. Flowers white, in 3-12 few-flowered axillary clusters; corolla 10-20mm long.

K1234567; 1-2500m; I-XII

Bushland, mostly on rocky hillsides; also in bushed or wooded grassland, or riverine. May be locally common.

Ol-bibi (MAA), Mosibit-ap-tirita (KIP), Sigeit (SAM), Ketim masop (TUR). Tugen use a root infusion as a child's tonic.

4. *Leucas grandis* Vatke

(incl. *L. mollis* Baker)

Shrub 0.5-2m. Leaves ovate, base cuneate, apex acute or obtuse, margin crenate-dentate, 3-12 by 1-7cm, densely pubescent to white-tomentose. Flowers white, in 2-6 dense clusters; corolla 9-24mm long.

K13467; 350-2300m; I-XII (I, VI)

Secondary or rocky (bushy) grassland or bushland, forest margins; riverine. Locally common.

Musebe (KAM), Mucii (KIK), Mosibit (KIP), Ol-bibi (MAA), Kipserere (MAR), Mkenye, Nyanyothi (LUO), Musphya (NAN).

5. *Leucas jamesii* Bak.

Shrub 0.5-2m. Leaves narrowly elliptic, base cuneate/attenuate, apex acute or obtuse, margin entire, 3-8 by 0.5-1.2cm, more or less densely puberulous. Flowers white, in 3-12 few-flowered clusters; corolla 10-14mm long.

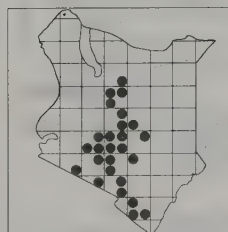
K13; 450-1350m, I, III-VII, IX, XII (VI)

Rocky bushland or woodland, occasionally on black cotton soil.

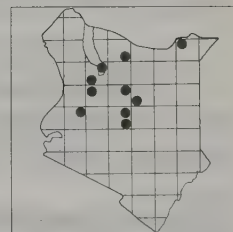
Lopara (PKT), Lotokon (SAM), Namalia, Ekareterete (TUR).



Leucas glabrata



Leucas grandis



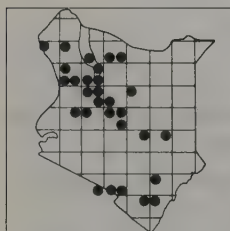
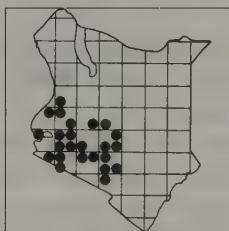
Leucas jamesii

6. *Leucas tomentosa* Gürke(incl. *L. pododiskos* Bullock)

Shrub 0.1-1.5m. Leaves obovate or elliptic, base cuneate, apex obtuse or rounded, margin crenate near apex, 1-4.5 by 0.8-2.7cm, densely (white-) pubescent. Flowers white, in several to 20 rather few-flowered clusters; corolla 12-18mm long.

K123467; 200-1500m; I-XII (V-VI)

Dry bushed or wooded grassland, dwarf shrub grassland, often on rocky slopes; may form pure stands. Dargu (BOR), Sarim (GAB), Jilhete (REN), Lmuchomi (SAM), Ekabonyo (TUR). A root infusion is used as purgative by Gabbra, Rendille and Turkana.

*Leucas tomentosa**Ocimum kilimandscharicum***7. OCIMUM**

Shrubs or herbs. Inflorescence an unbranched (or branched at base) terminal raceme with the flowers in whorls; calyx enlarging at fruiting stage.

1. Plants from northern Kenya with stellate hairs**4. *O. tomentosum**** Plants with non-stellate hairs **2****2. Petiole less than 5mm long** **3*** Petiole, at least on lower leaves, more than 10mm long **3. *O. suave*****3. Fruiting calyx with tuft of clearly visible hairs at mouth** **1. *O. kilimandscharicum**** Fruiting calyx without hairtuft, but with upcurved lower lip **4****4. Leaves up to 1.5 by 1.3cm, with truncate base (Ngong escarpment); corolla 7-8mm long****5. *O. sp. B**** Leaves up to 5 by 3cm, with cuneate base; corolla 8-12mm long **2. *O. lamiifolium***

Note. The delimitations on *Ocimum* are not very clear; revision of the genus is badly needed.

1. *Ocimum kilimandscharicum* Gürke

Woody herb or shrub 0.2-2m. Leaves ovate or elliptic,

base cuneate, apex acute or obtuse, margin (minutely) serrate, 1.5-6 by 0.6-3cm, pubescent. Flowers white, pale violet, or rarely purple, in inflorescences 6-25cm long; corolla 4-7mm long.

K3456; 1100-2550m; I-II, IV-XII

Stony or riverine grassland, also on black cotton soil and in ruderal situations.

Makoli (EMB), Wenye (KAM), Bwar (LUO), Makuru (MER), Supko (PKT), Kameteber (TUR). Leaves used for tea, also in cough remedies.

2. *Ocimum lamiifolium* Benth.

Woody herb or shrub 0.5-3m. Leaves ovate, base cuneate, apex acute, margin serrate, 2-5 by 1-3cm, pubescent to tomentose beneath. Flowers white or mauve, with reddish calyx, in inflorescences 5-22cm long; corolla 8-12mm long; calyx enlarged in fruit, to 10mm long.

K12345; 1500-2550m; I, V-XII (IX, XII)

(Drier) forest margins / grassland mosaic or secondary (*Tarchonanthus*) bushland.

Mukuri (KIK), Churungut ap mongokekek (KIP), Olloisamis (MAA).

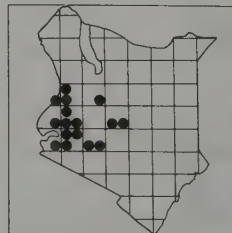
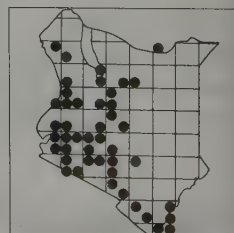
3. *Ocimum suave* Willd.

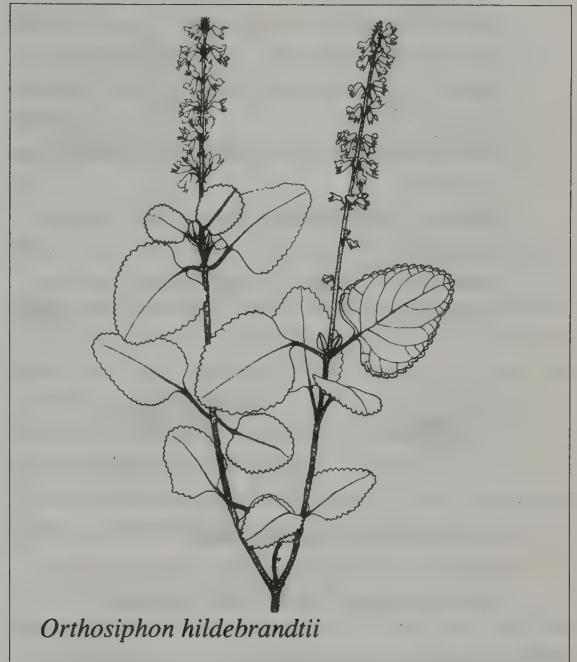
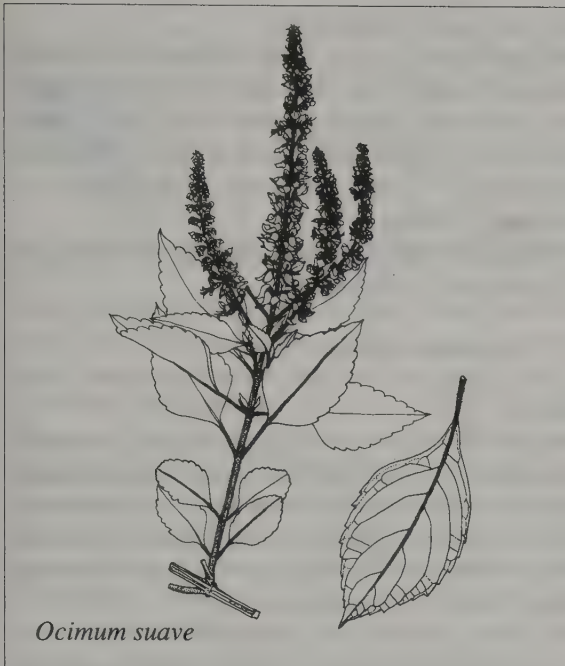
Woody herb or shrub 0.3-2.5m. Leaves ovate or elliptic, base cuneate, apex acute, margin serrate, 2-18 by 1-7cm, pubescent to almost glabrous (on the coast). Flowers whitish or pale purple, in inflorescences 4-18cm long; corolla 3.5-5mm long.

K1234567; 1-2400m; I-XII (I, VII)

Locally common in disturbed areas such as forest margins, secondary bushland, ruderal sites, (secondary) grassland, riverine sites. In dry areas always on higher hills.

Manjabbi, Anchabbi (BOR), Vumba manga (DIG), Vumba manga (GIR), Mukandu (KAM), Mugio (KIK), Oluruecha (LUO), Ol-emoran (MAA), Jemasat, Chesimia (MAR), Lemurran (SAM), Mrumbawassi

*Ocimum lamiifolium**Ocimum suave*



(TAI), Loguru, Ichoke (TUR). Leaves used in cough remedies.

4. *Ocimum tomentosum* Oliv.

Shrub 0.4-2m. Leaves ovate, base cuneate, truncate or slightly cordate, apex obtuse or rounded, margin entire, 1-5 by 0.8-3cm, stellate-tomentose. Flowers yellow or white with purple stamens, in inflorescences 2-8(17)cm long, corolla 5-6mm long; calyx woolly. K1; 350-1100m; XI-XII *

Collected near Marsabit and halfway between Mandera and ElWak; *Acacia* bushland?

5. *Ocimum* sp. B of UKWF

Shrub to 1.5m. Leaves broadly ovate, base truncate, apex obtuse, margin crenate, 0.7-1.5 by 0.5-1.3cm, pubescent. Flowers white, in 4-9cm long inflorescences; corolla 7-8mm long.

K6; found twice on Ngong escarpment at 1650-1900m, in bushland; XII *

8. ORTHOSIPHON

Herbs or shrubs; flowers in whorls on terminal racemes.

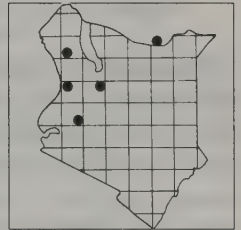
Orthosiphon hildebrandtii Bak.

Woody herb or shrub 0.5-2m. Leaves ovate, base

cuneate, subcordate, or truncate, apex rounded, margin serrate, 1.5-5 by 1-3.5cm, pubescent. Flowers pale pink to mauve, in inflorescences 4-16cm long; corolla 6-12mm long.

K123; 1050-2550m; I-II, VIII, X, XII *

Forest clearings or secondary bushland.



*Orthosiphon hildebrandtii*2

9. PLECTRANTHUS

Shrubs or herbs. Inflorescence a terminal raceme or panicle of whorled flowers.

- | | |
|---|-----------------------|
| 1. Plant flowering when leafless | 4. <i>P. ignarius</i> |
| * Flowers and leaves both present | 2 |
| 2. Leaves glabrous or sparsely pubescent (forest species) | 3 |
| * Leaves pubescent to tomentose | 5 |
| 3. Flowers yellow; axillary, hairy brown bulbils present | 7. <i>P. luteus</i> |
| * Flowers purple, white or blue; bulbils absent | 4 |

4. Corolla 6-8mm long; upper lip of corolla much shorter than lower lip **1. *P. alboviolaceus***
- * Corolla 10-17mm long; upper lip erect, as long as lower lip **8. *P. sylvestris***
5. Moist forest species, mostly with (sub-)cordate leaf base **6**
- * Species of drier habitats, mostly with cuneate leaf base **8**
6. Flowers in 3-flowered pedunculate cymes at nodes (see ill.) **2. *P. albus***

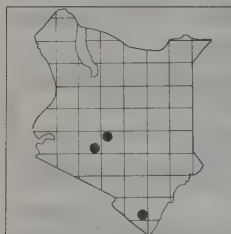


- * Flowers in whorls at the nodes **7**
- 7. Calyx with a hairtuft inside, or bracts falling before fruiting stage; forest margins **3. *P. barbatus***
- * Calyx without hairs inside, bracts persistent to fruiting stage; forest undergrowth **5. *P. kamerunensis***
- 8. Flowers more than 15 per node, very crowded **6. *P. lactiflorus***
- * Flowers less than 10 per node **9**
- 9. Leaves less than 3 by 2.5cm; petiole less than 1cm **4. *P. ignarius***
- * Leaves larger, with long petioles **3. *P. barbatus***

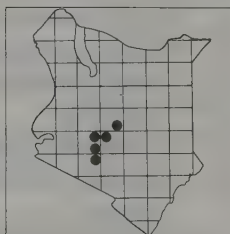
1. *Plectranthus alboviolaceus* Gürke

Woody herb or weak shrub 1.5-3m. Leaves ovate, base cuneate, apex acute, margin crenate, 5-10 by 4-7cm, glabrous or nearly so. Flowers white with purple spots, in panicles 10-20cm long; corolla 6-8mm long. K47; 1350-2100m; VI-VIII *

Moist forest undergrowth, locally common but rarely collected.



Plectranthus alboviolaceus



Plectranthus albus

2. *Plectranthus albus* Gürke

Woody herb 0.5-1.8m, often trailing or scrambling. Leaves broadly ovate, base (sub-)cordate, apex acute to acuminate, margin crenate, 2-7.5 by 2-5.5cm, pubescent. Flowers pale mauve or white with purple, in panicles 5-15cm long; corolla 13-18mm long.

K4; 1850-3000m; I, VI-XII

Moist forest undergrowth or clearings, also at edge of bamboo and in swampy spots.

3. *Plectranthus barbatus* Andr.

[incl. sp. B, H of UKWF, *Coleus forskohlii* (Poir.) Briq.]

Woody herb or shrub (0.3) 1-4m, often somewhat succulent. Leaves elliptic or ovate, base attenuate to truncate, apex obtuse to acute, margin rough-crenate, 3-12 by 2-11cm, densely velutinous or tomentose. Flowers blue to blue-purple, in racemes 10-40cm long; corolla 14-24mm long.

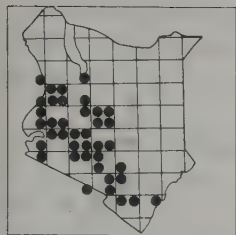
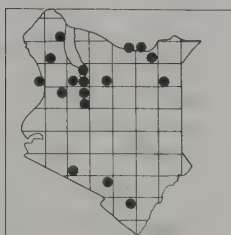
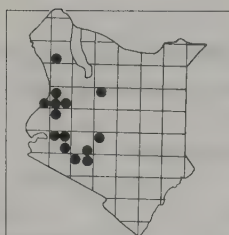
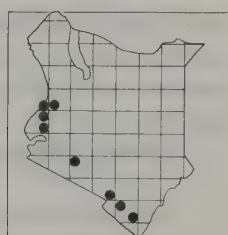
K1234567; (100?) 600-2800m; I-XII (I, XII)

Forest margins, wooded grassland, (rocky) grassland, various kinds of moister bushland; frequently planted as a quick-growing hedge.

Moiya, Muvou (KAM), Muigoya (KIK), Okita, Akita (LUO), Shilauha (LUH), Mwaraka (MER), Irakwet (NAN). Leaves speed up the ripening of bananas.



Plectranthus barbatus

*Plectranthus barbatus**Plectranthus ignarius**Plectranthus kamerunensis**Plectranthus lactiflorus*

Note. Species H of UKWF is a form without hairs in the throat of the calyx.

4. *Plectranthus ignarius* (Schweinf.) Agnew

Shrub 0.3-3m, slightly fleshy; often with arching branches which may clamber through other shrubs; often flowers when leafless. Leaves broadly elliptic to almost orbicular, base crenate, apex rounded or acute, margin entire to crenate 1-3 by 1-2.5cm, pubescent. Flowers blue or violet, in racemes 4-22cm long; corolla 10-19mm long.

K124567; 500-1900m; I, III, V-VII, IX-XII (VI)

Dry bushland or bushed grassland on rocky sites.

Barbarisa (BOR), Sali (SAM), Dalol (SOM), Akurau, Nakhwara (TUR).

- var. *ignarius*: leaf margin crenate; fruiting calyx with sepals roughly equal in length, to 8 x 3mm.

- var. *grandicalyx* Beentje var. nov.: leaf margin entire; fruiting calyx with the widest sepal much longer than the narrower ones, over 8 x 5mm. (A *P. ignarius* var. *ignarius* differt foliorum marginis integris, sepalis inaequalis, posteriore ultra aliiisque major. Typus Verdcourt 2269, Mt Kulal.)

NOTE. K5 included, but not mapped: "South Kavi-rondo" (no further locality, Lewis 198).

5. *Plectranthus kamerunensis* Gürke

Woody herb 0.6-3m, often trailing or climbing. Leaves broadly ovate, base (sub-) cordate, apex acute, margin crenate-dentate, 2.5-12 by 2-9cm, pubescent. Flowers white or purple, in racemes or panicles 7-30cm long; corolla 13-21mm long.

K123456; 1950-3000m; I-II, V, VII-XII (VIII-IX)

Forest undergrowth or -margins; also in secondary bushland.

Cherungut, Chepkoraita (KIP), Ol-mairongi (MAA).

6. *Plectranthus lactiflorus* (Vatke) Agnew

Woody herb 0.8-2.5m, somewhat succulent. Leaves

ovate, base cuneate, apex acute or obtuse, margins crenate, 3-10 by 1.5-6cm, pubescent. Flowers blue or purple in dense racemes or panicles to 10-30cm long; corolla 15-20mm long.

K3567; 1200-2000m; II-III, V-VI, VIII-XI *

Bushed grassland or thickets.

Oringa-lagaldes (MAA), Bicharo (TAI). Taita use the plant in a remedy for stomach trouble.

7. *Plectranthus luteus* Gürke

Woody herb 1-2m, often with axillary, hairy bulbils. Leaves elliptic, base cuneate, apex acuminate, margin dentate, 5-15 by 2-5cm, glabrous or sparsely pubescent on veins. Flowers yellow, in axillary or terminal racemes 3-8cm long; corolla 8-13mm long. Seems to flower rarely.

K345; 1400-2400m; VII-VIII, X *

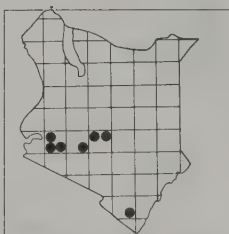
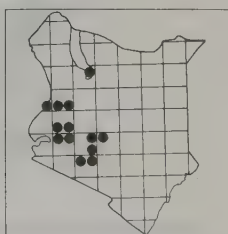
Moist forest undergrowth; often common along paths. Chepkutik (KIP), Yesamesyet (NAN).

8. *Plectranthus sylvestris* Gürke

Woody herb or shrub 0.5-2.5m. Leaves ovate, base cuneate to almost truncate, apex obtuse to acuminate, margin serrate, 4-13 by 2-7cm, glabrous or sparsely hairy. Flowers blue, in panicles 6-30cm long; corolla 10-17mm long.

K13456; 1800-3300m; I-III, V-XII (VII-X)

Moist forest undergrowth, also in plantations of exotics and in bamboo; may be abundant where bamboo has died.

*Plectranthus luteus**Plectranthus sylvestris*

10. PYCNOSTACHYS

Herbs or shrubs. Flowers in terminal panicles or racemes; calyx with spine-like teeth; corolla like *Plectranthus*.

1. Flowers in loose panicles or racemes

3. *P. umbrosa*

- * Flowers in head-like spikes

2

2. Calyx tomentose at mouth

1. *P. eminii*

- * Calyx glabrous at mouth, or nearly so

2. *P. meyeri*

1. *Pycnostachys eminii* Gürke

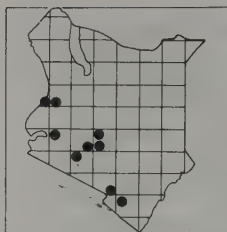
Woody herb 1-2m. Leaves (broadly) ovate, base cuneate, apex acuminate, margin crenate, 3-10 by 1.5-5cm, (thinly) pubescent. Flowers blue or purple, in cylindrical head-like spikes 2.5-6cm long and 1.5cm across; corolla 10-15mm long.

K5; 1600-1800m; III, VI, IX *

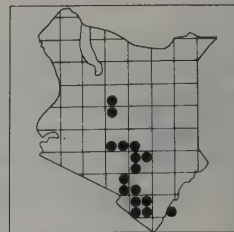
Riverine or in forest margins; only known from the Kisii-Sotik area.

2. *Pycnostachys meyeri* Gürke

Woody herb or shrub 0.6-2.5m. Very similar to *P. eminii*, but the leaves less hairy and no tomentose hairs in the calyx throat. Flowers blue or white, tinged purple.



Pycnostachys meyeri



Pycnostachys umbrosa

K234567; (1200) 1900-3000m; I-II, VII-XII

Forest (margins), also in bamboo zone and in secondary bushland. Indicator of disturbance?

Muthuri, Muchi (KIK).

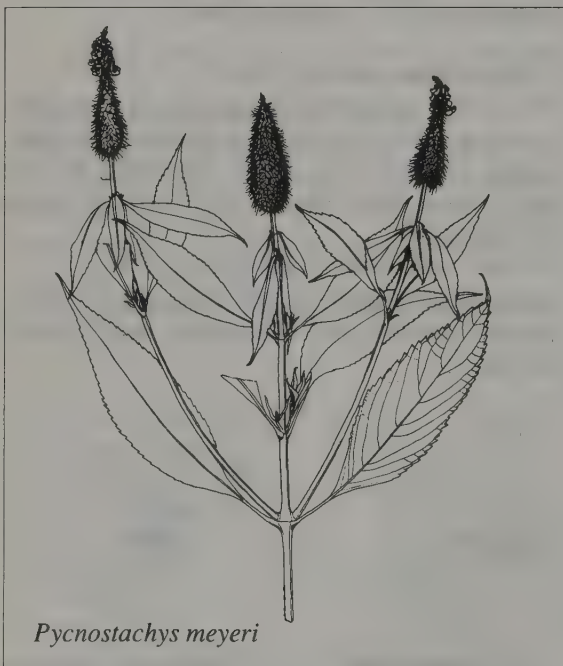
3. *Pycnostachys umbrosa* (Vatke) Perkins

Semiscandent woody herb or shrub 1-6m, often somewhat fleshy. Leaves (broadly) ovate or elliptic, base cuneate, apex acuminate, margin crenate, 5-16 by 3-9.5cm, glabrous or hairy on the veins. Flowers bright blue or purple, in panicles or racemes 4-18cm long; corolla 18-24mm long.

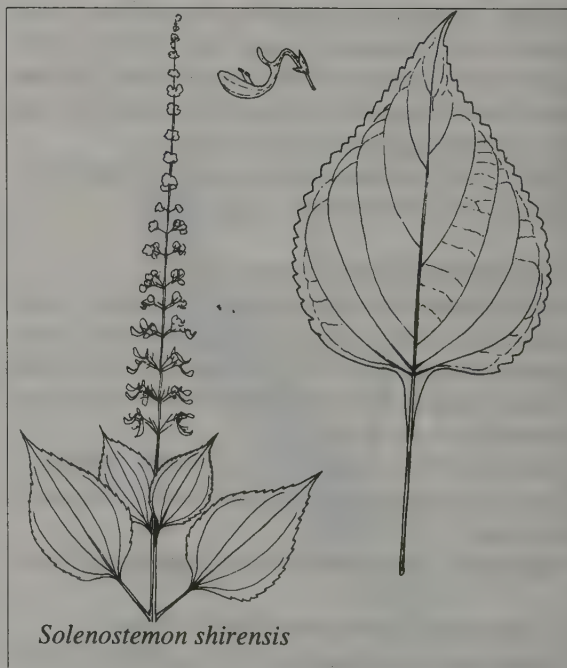
K1467; (1) 700-2400m; III-IX, XI-XII (IV-V)

Dry bushland, drier woodland, occasionally riverine. Mobong (KAM), Muhoro (KIK). Used as an emetic.

Note. The specimens from Kilifi (Jeffrey K405) is rather outside the altitude range.



Pycnostachys meyeri



Solenostemon shirensis

11. SOLENOSTEMON

Similar to *Plectranthus*, but flowers in small cymes at the whorls of the inflorescence.

Solenostemon shirens (Gürke) Codd
(*S. zambesiacus* Bak.)

Shrub 1.5-3m. Leaves ovate, base attenuate, apex acuminate, margin crenate, 6-12 by 4-6cm, short-tomentose below. Flowers blue or purple, in racemes 8-18cm long; corolla about 10mm long.

K5; 1600-3000m; II, IX-X *

A rather rare plant of wet montane forest, only known from Kisii and Mt. Elgon.

12. TETRADENIA

Tetradenia riparia (Hochst.) Codd.

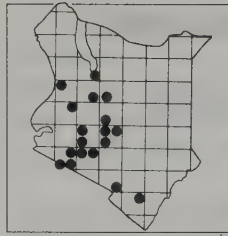
[*Iboza multiflora* (Benth.) E.A. Bruce]

Shrub or tree 1-4m, subsucculent. Leaves (broadly) ovate, base (sub-)cordate, apex obtuse, margin (double) crenate, 3-20 by 1.5-16cm, pubescent beneath. Flowers dioecious, white or pale purple, in terminal panicles 15-60cm long (sometimes with short axillary racemes as well); corolla 2-3mm long.

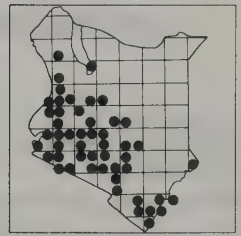
K1234567; 600-2250m; II-IV, VI-XII (VIII)

Bushland on rocky slopes.

Thivea (KAM), Oring-lagaldes (MAA), Lonwa



Tetradenia riparia



Tinnea aethiopica

(MAR), Lonuo (PKT), Ngeliot (SAM). Crushed leaf used against cataract by the Pokot.

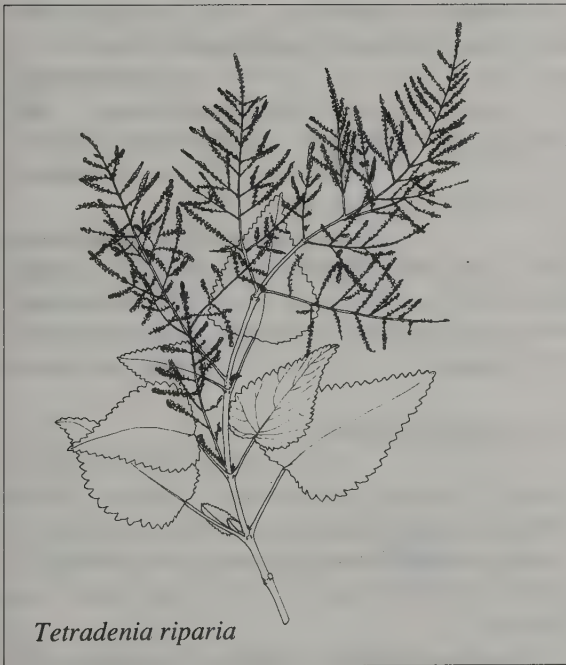
13. TINNEA

Tinnea aethiopica Hook.f. (sensu lato)

Shrub 1-4.5m, sometimes weakly scandent. Leaves ovate to obovate, base attenuate or cuneate, apex apiculate, obtuse or emarginate, margin entire or crenate in upper half, 0.5-6 by 0.3-4cm, pubescent to subglabrous. Flowers blackish purple, axillary, solitary or in few-flowered groups; corolla 13-23mm long. Fruiting calyx to 25mm long, membranaceous. K1234567; 1-2350m; I-XII

Various types of bushland, wooded grassland, thickets, bushy grassland, (riverine) forest margins.

Mfiyofiyo-dume (SWA), Malika (KAM), Mugandu (KIK), Olando-marachar (LUO), Wandanda (TAI).



Tetradenia riparia



Tinnea aethiopica

MONOCOTYLEDONES

287. MUSACEAE

The banana family.

1. ENSETE

Ensete edule (J.F. Gmel.) Horan

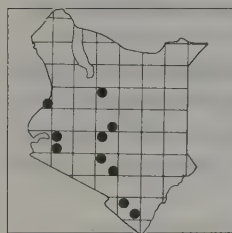
[*E. ventricosum* (Welw.) Cheesm.]

Herbaceous tree, pseudostem of old leafbases to 4m high. Leaves oblong, to 5m long. Inflorescence to 3m long; bracts large, purple-red; flowers cream or pink, at inner base of bract. Fruit a small banana, 7-12.5cm long.

K13457; 1400-2100m; I, VIII, XII *

Moist forests.

Wild banana (STAND), Ikulutui (KAM), Ihindu, Thendu (KIK), Ol-musalala (MAA), Sosurwa (MAR), Sasuriet (KIP, NAN), Gikobo, Mukoko (MER), Isengeru (TAI). Petioles yield a strong, fine fibre. Leaves used for thatching.



Ensete edule



Ensete edule

293a. ALOEACEAE

1. ALOE

Leaves alternate, succulent, at their base enveloping the stem, with spiny margins. Inflorescence terminal (in these spp.); flowers with a long tube and 6 small lobes in 2 whorls. Fruit a papery or slightly woody capsule.

- | | | |
|-----|--|--|
| 1. | Plants erect | 2 |
| * | Plants hanging from steep rock faces | 11 |
| 2. | Plants single-stemmed, solitary; inflorescence much-branched | 3 |
| * | Plants forming thickets | 5 |
| 3. | Pedicel more than twice as long as its bract | 4 |
| * | Pedicel less than twice as long as its bract; plant smelling of rats | 1. <i>A. ballyi</i> |
| 4. | Leaves persistent on the stem | 12. <i>A. volkensii</i> |
| | Leaves only near the top of the stem | 4. <i>A. elata</i> |
| 5. | Pedicel less than twice as long as its bract; inflorescence unbranched | 5. <i>A. fibrosa</i> |
| * | Pedicel more than twice as long as its bract; inflorescence usually with at least one branch | 6 |
| 6. | Branches of inflorescence 1-4 | 7 |
| * | Branches of inflorescence 5 or more | 9 |
| 7. | Leaves less than 3.5cm wide | 6. <i>A. kedongensis</i> |
| * | Leaves about 5cm wide | 8 |
| 8. | Flowers < 30mm long | 2. <i>A. cheranganiensis</i> |
| | Flowers > 33mm long | 9. <i>A. nyeriensis</i> |
| 9. | Groups of flowers round-topped, dense | 10. <i>A. rabaiensis</i> |
| * | Groups of flowers acute-topped, loose | 10 |
| 10. | Leaves 6-9cm wide; peduncles purple or red | 3. <i>A. dawei</i> |
| * | Leaves 5cm wide; peduncles green | 9. <i>A. nyeriensis</i> ; 8. <i>A. ngobitensis</i> |
| 11. | Leaves 18-30mm wide; inflorescence branched | 7. <i>A. kulalensis</i> |
| * | Leaves 40-90mm wide; inflorescence unbranched | 10. <i>A. powysorum</i> |

1. *Aloe ballyi* Reynolds

RARE, ?VULNERABLE

Stems 5-7.5m high. Leaves up to 90cm long, 14cm wide, grey-green without spots; teeth 4-5mm long, 10-15mm apart. Flowers orange-red, green near the tip, in panicles to 60cm long; flower 28-33mm long. Fruit unknown.

K7; in dense bush near Mwatate (Taita Hills). The

whole plant smells strongly of rats, and is known as the Rat Aloe.

2. *Aloe cheranganiensis* Carter & Brandham

VULNERABLE

Stems to 2m high. Leaves to 40cm long, 5cm wide at the base, glaucous green, spotted; teeth about 3mm long, 8-13mm apart. Flowers bright orange, yellow at the mouth, in hardly branched panicles to 60cm high; flowers hanging when open; flowers about 29mm long. Fruit unknown.

K2; 1200-1950m; VI, XI*

Bushed grassland; endemic to an area north of the Cherangani Hills.

3. *Aloe dawei* Berger

Stems 1-4m high. Leaves 40-60cm, green (sometimes reddish), usually without spots; teeth 3-4mm long, 10-15mm apart. Flowers (orange-)red, often white-spotted, in panicles 60-90cm high; flowers 30-35mm long. Fruit 12 by 7mm.

K356; 1100-2100m; IV, VII-X *

Rocky bushed grassland.

Tangaratwet (KIP).

4. *Aloe elata* S. Carter ined.

Stems 5-10m high. Leaves 50-80cm, glaucous green, unspotted; teeth about 4mm long, 10-12mm apart. Flowers in branched panicles to 60cm long; flowers glossy orange-red changing to yellow, about 3.5cm long. Fruit 3cm long, glossy black.

K6; 1050-1900m; IV-VII, XII.

Rocky woodland: Nguruman Hills.

5. *Aloe fibrosa* Lavranos & Newton

Stems to 2.5m high. Leaves about 30 by 4-5cm, green or brownish, sometimes spotted above, often spotted below; teeth 3-4mm long, 15-17mm apart. Flowers orange-red with yellow margins, in racemes (rarely

with 1-2 branches); flowers about 33mm long. Fruit not seen.

K4; 1800-2000m; XI *

(Semi-) evergreen bushland or wooded grassland, in rocky sites. Known from Mua Hills and Kilima Kiu.

6. *Aloe kedongensis* Reynolds

Stems 1-2m, and in thickets up to 4m high. Leaves to 30 by 3.5cm, (yellowish) green, unspotted; teeth 2-5mm long, 8-10mm apart. Flowers red, in (0)1-4 branched panicles; flowers 30-35mm long. Fruit 22 by 9mm.

K346; 1800-2100m; I-III, V-VI, X *

Rocky sites in evergreen (*Tarchonanthus*) bushland. Endemic to Kenya.

Kiluma (KAM), Tangaratwet (KIP), Osuguru (MAA).

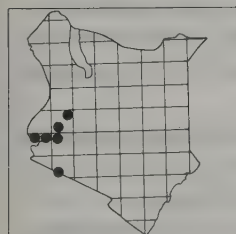
7. *A. kulalensis* Newton & Beentje

RARE

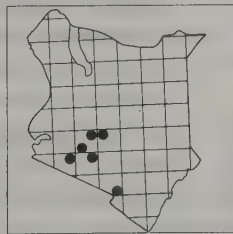
Hanging shrub to 2.5m long. Leaves narrowly triangular, 18-25 by 1.8-3cm, mid-green, unspotted; teeth 1mm long, 2-13mm apart. Inflorescence to 32 cm long, with 2-3 branches; flowers red, ca. 25mm long.

K1; 1500-1700m; X*

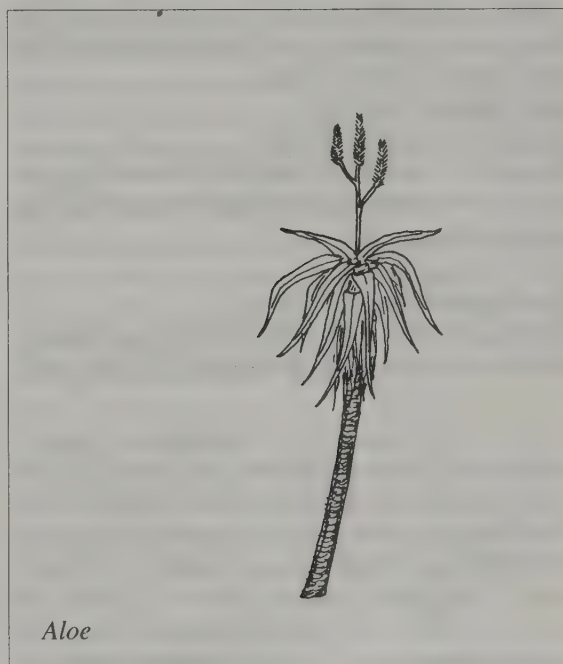
On steep rock faces of Mt Kulal.



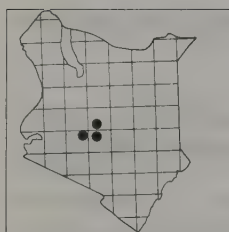
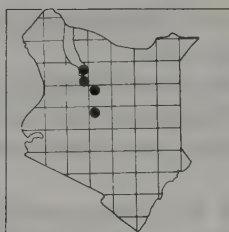
Aloe dawei



Aloe kedongensis



Aloe

*Aloe nyeriensis**Aloe powysiorum***8. *A. ngobitensis* Reynolds**

Looking much like *A. nyeriensis* but differs in being smaller, with thinner stems, smaller leaves which are spotted, different racemes and orange-red flowers. K4, east of Nyahururu, in rocky bushland.

9. *Aloe nyeriensis* Christian VULNERABLE

Stems 1-3m high. Leaves 50-60 by 7cm, greygreen, unspotted (except in young shoots); teeth 3-4mm long, 8-12mm apart. Flowers red, in 5-8 branched panicles to 60cm; flowers 30-40mm long. Fruit 16 by 8mm. K4; 1800-2250m; I, IV *

Rocky bushland. Endemic to Kenya.

10. *Aloe powysiorum* Newton & Beentje RARE

Hanging shrub, with stems to 1.8m long. Leaves set close together at branch tips, narrowly triangular, to 55 by 9cm, pale green, unspotted, with teeth to 1mm long, 3-8mm apart. Flowers red, very close together in unbranched, almost horizontal inflorescences to 48cm long; flowers 32-36mm long.

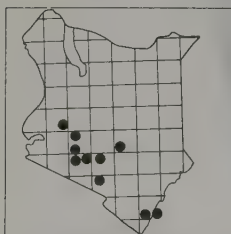
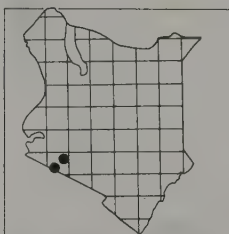
K1/4; 1600-1900m; VI*

Hanging from steep rock faces.

Note: Mrs. Powys believes that the same species occurs on Porale and Kulal; the Ndotos taxon might be slightly different.

11. *Aloe rabaiensis* Rendle

Stems 1-1.5m high. Leaves up to 45 by 8cm, greygreen, usually unspotted; teeth 4mm long, 5-15mm apart.

*Aloe rabaiensis**Aloe volkensii*

Flowers red, in large many-branched panicles; flowers 28-32mm long.

K 3467; 250-2250m; I-II, IX-XI *

Rocky bushland.

12. *Aloe volkensii* Engl.

Shrub 2.5-9m. Leaves up to 60 by 10 cm, (olive-) green, unspotted (except in young leaves), teeth 4mm long, 8-15mm apart. Flowers red, yellow at the mouth, in much-branched panicles; flowers about 35mm long.

K6; 1500-1800m; VIII-IX

Rocky bushland; Narok area and Maasai Mara.

Note. Reynolds also cites under this name van Someren CM 22015-22016 from Emali Hill; I believe they are *A. rabaiensis*.

293b. DRACAENACEAE**DRACAENA**

Leaves spirally arranged, rather leathery, with the base more or less sheathing. Inflorescences terminal. Flowers with a tube and 6 lobes in 2 whorls. Fruit a fleshy berry.

1. Leaves elliptic, 8-18 by 2.5-6cm; sarmentose shrub with evenly spaced leaves

6. *D. laxissima*

- * Leaves narrowly lanceolate, more than 6 x as long as wide; erect shrubs or trees with leaves close together **2**

2. Coastal forest species, found below 500m **3**

- * Inland species, found above 1000m **4**

3. Leaves 25-60 by 4-7.5cm, with the base completely amplexicaul **2. *D. aletriformis***

- * Leaves 15-55 by 3-6cm, with the base amplexicaul **3. *D. deremensis***

- * Leaves 10-35 by 1-3.5cm, with the base half-amplexicaul **8. *D. usambarensis***

4. Semi-evergreen bushland species on steep rocky hills; leaves 1-5cm wide; corolla 8-11mm long; fruit 8-11mm **4. *D. ellenbeckii***

- * Forest species, corolla more than 11mm long; fruit over 11mm **5**

5. Leaves 1.5-2.2cm wide **1. *D. afromontana***

- * Leaves over 4cm wide **6**

6. Corolla 11-13mm long; widespread

7. *D. steudneri*

*Dracaena ellenbeckiana*

* Corolla 18-22mm long; Kakamega and SW Mau

5. *D. fragrans*

NOTE: Due to misidentified collections this last couplet might be too restricted. Coastal plants identified as *steudneri* are probably a different taxon: *Dracaena steudneri* var. *kilimanjarica*, coast at low altitudes: K7; 50-450m; Buda to Mangea.

1. *Dracaena afromontana* Mildbr.

Tree with very few branches and somewhat palm-like habit, 2.5-7m high; twice reported as scandent. Leaves narrowly lanceolate, base gradually narrowing but suddenly amplexicaul, apex acute, 12-35 by 1.5-2.2cm, glabrous. Flowers white or cream, in panicles 20-60cm long; flowers 13-15mm long. Fruit orange, round, 15-18mm

K1234567; 1900-2400m; I, IV, VIII-IX *

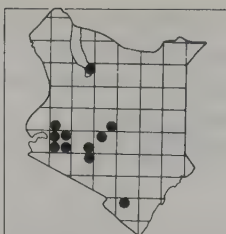
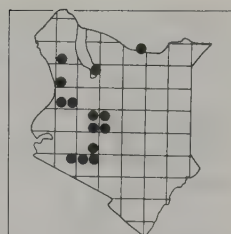
Moist forest or bamboo.

Muthari (KIK), Labatiet (KIP), Ol-ebenyan (MAA), Lebekuet (NAN).

2. *Dracaena alettriformis* (Harv.) Bos

(*D. hookeriana* Koch)

Tree 3-4m. Leaves narrowly lanceolate, base narrowed but widening near stem and amplexicaul, apex acute, 25-60 by 4-7.5cm, glabrous. Flowers white,

*Dracaena afromontana**Dracaena ellenbeckiana*

flushed with pink, in panicles 16-80(?)cm long; corolla about 20mm long. Fruit orange, round or 2-lobed, to 14mm long.

K7; 50-300m; VII *

Moist forest; Kambe, Rabai and Shimba Hills.

3. *Dracaena deremensis* Engl.

Shrub 1-3m. Leaves elliptic, base gradually narrowing but suddenly amplexicaul at the very base, apex acute to acuminate, 15-55 by 3-6cm, glabrous. Flowers white, in little-branched panicles to 28cm; corolla about 20mm long. Fruit orange, about 1cm.

K7; 1-500m; VII *

Forest (between Dzombo and Mangea)

4. *Dracaena ellenbeckiana* Engl.

(incl. *D. sp. nov.* of KTS)

Palm-like tree 3-7.5m; sometimes with a few branches; bark grey, with leaf-scars. Leaves tufted near tree-top, narrowly lanceolate, base hardly narrowed, amplexicaul, apex gradually acute, 22-55 by 1-2cm, glabrous. Flowers yellow-green, in panicles 20-75cm long; corolla 8-11mm long. Fruit red, round or 2-3-lobed, 8-11mm.

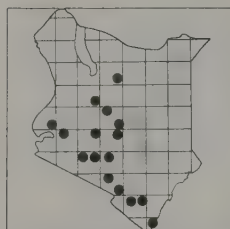
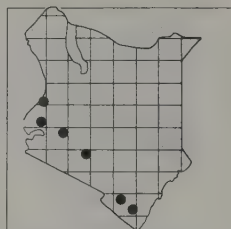
K12346; 1050-1950m; IV, IX-XI *

Semi-evergreen bushland on (steep) rocky hillslopes. Butie, Bute (BOR), Butte (GAB), Motiet (KIP), Olekidong (MAA), Moronguton (PKT), Nkokidong (SAM), Emisth, Emith (TUR). The hollowed-out stems are used for arrow quivers.

5. *Dracaena fragrans* (L.) Ker-Gawl.

Shrub or tree 3-5m (outside Kenya to 15 m), unbranched. Leaves narrowly elliptic, base narrowed but spreading at the amplexicaul extreme, apex acute, 40-125 by 4-10cm, glabrous. Flowers white, in panicles 40-100cm; corolla 18-22mm long. Fruit orange, round, 11-18mm, sometimes lobed.

K5; 1550-1850m; IV, XII *

*Dracaena laxissima**Dracaena steudneri*

Moist forest; known from Kakamega and SW Mau (near Sotik).

Mwere, Ofito (LUO), Embano, Lukhuba (LUH).

6. *Dracaena laxissima* Engl.

Sarmentose shrub, often supported by other vegetation, 1-4m long. Leaves evenly distributed, elliptic, base cuneate or rounded, petiole a sheath clasping the stem, apex acuminate, 8-18 by 2.5-6cm, glabrous. Flowers white, in panicles 15-30cm long; corolla 4-10mm long. Fruit orange-red, round or lobed, 6-9mm. K14567; 350-2250m; I-II, VII-VIII *

Moist or riverine forest; in dry forests usually near water.

A root decoction is employed against venereal diseases.

7. *Dracaena steudneri* Engl.

Shrub or tree 3-12m. Leaves narrowly lanceolate, base slightly narrowed and widening to amplexicaul, apex acute, 40-100 by 4-10.5cm, glabrous. Flowers cream or yellow-green, in panicles 30-100cm long; corolla 11-13mm. Fruit orange, red or yellow, round, 12-14mm.

K13457; 1250-2100m; III, VII, IX-XI *

Moist or dry forest.

Msanaka (SWA), Muthari (KIK), Sasaante (SAM), Mololosti (SEB), Issai (TAI), Roke (TUG).

8. *Dracaena usambarensis* Engl.

Shrub or tree 3-6m, evergreen. Leaves narrowly lanceolate, base narrowed and half-amplexicaul, apex long-acute, 10-35 by 1-3.5cm, glabrous. Flowers white, in panicles 11-15cm long; corolla 32-35mm long. Fruit orange to red, round or lobed, 10-15mm. K7; 1-450m; II, X-XI*

Moist forest, usually near streams: Pangani, Shimba Hills, Mrima, Gongoni, Buda, and near Ramisi.

Mshindamaji (SWA), Mzigande, Mkonje (DIG).

297. SMILACACEAE

Climbers with prickly stems. Leaves alternate, with two tendrils per petiole-base, 3-9-nerved. Flowers dioecious, in axillary umbels. Fruit a berry.

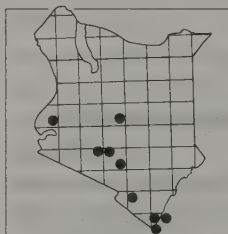
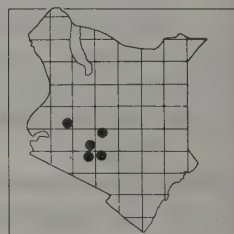
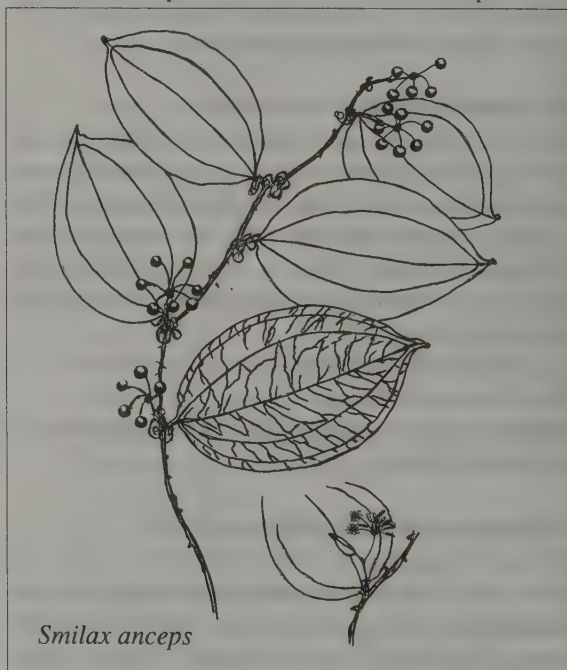
1. Leaves elliptic/ovate in outline; inflorescence a simple umbel **1. *S. anceps***

* Leaves triangular in outline; inflorescence a raceme **2. *S. aspera***

1. *Smilax anceps* Willd.

(*S. kraussiana* Meisn.)

Climber to at least 5m, probably more. Stems and lower part of petiole with 1-3mm long recurved thorns. Leaves broadly ovate or (broadly) elliptic, base cuneate to rounded, apex rounded and apiculate, 7-15 by 3.5-13cm, glabrous. Flowers white or yellow-green, in stalked umbels; corolla 4-5mm long. Fruit red to purple, round, 5-10mm.

*Smilax anceps**Smilax aspera**Smilax anceps*

K347; 1-400 (coast) and 1450-2400m; V, VII *
Moist forest, riverine forest, near Ramisi once found
in *Borassus* woodland.

Mbugu mwiba (SWA), Muriga (DIG), Kikwa, Mut-
wari-wangoma (KIK).

2. *Smilax aspera* L.

(*S. goetzeana* Engl.)

Climber to 12m; stems, petioles, and midribs of ma-
ture leaves with or without small (1-2mm) prickles.
Leaves ovate, base truncate to cordate, apex spiny-
acute, 3-8 by 2.5-5.5cm, glabrous. Flowers cream or
yellow-green, in small umbels on a raceme; corolla 3-
4mm long. Fruit red to purple, round, 5-10mm.

K34; 1450-2300m; II, VI, XII *

Moist forest, often riverine.

314. PALMAE

Stems solitary or clustered, unbranched except in
Hyphaene. Leaves spirally arranged, with a sheathing
base; blade palmate or pinnate, with the leaflets or
leaf-parts folded. Plants monoecious or dioecious,
sometimes dying after flowering. Inflorescences
axillary, from between the leaves, often with very
large basal bracts, branched; single or occasionally
grouped; flower parts usually in whorls of 3. Fruit 1-
10 seeded.

NOTE: the palms of Kenya are badly collected, be-
cause of their often large leaves. Of most species, very
few collections are known, and therefore our knowl-
edge of their distribution is poor. When collecting a
palm, good descriptions should be made of the leaves
and petiole.

CULTIVATION: Many palms are cultivated at the
Coast as well as inland. A good key is given in FTEA.

- | | |
|---|--------------------|
| 1. Leaves palmate | 2 |
| * Leaves pinnate | 3 |
| 2. Trees unbranched; trunk often thickest above
the middle; petiole with complex teeth along
margin | 2. <i>Borassus</i> |
| * Trees usually branched; trunk thickest near
base; petiole with simple spines along
margin | 5. <i>Hyphaene</i> |
| 3. Leaves unarmed | 4 |
| * Leaves spiny, at least near base | 5 |
| 4. Leaflets with one fold; petiole to 2m | 3. <i>Cocos</i> |
| * Leaflets with 3 or more folds; petiole to 15cm | 1. <i>Areca</i> |

- | | |
|--|-------------------|
| 5. Leaflet margins spiny; fruit scaly | 7. <i>Raphia</i> |
| * Leaflet margins unarmed; fruit not scaly | 6 |
| 6. Leaflets V-shaped in cross-section; leaf-
sheaths like sacking | 6. <i>Phoenix</i> |
| * Leaflets ^-shaped in cross-section; leaf sheaths
spiny | 4. <i>Elaeis</i> |

1. ARECA

Monoecious palms with pinnate leaves; leaflets often
compound. Flowers in groups of 3, one central male
and two lateral female ones, or with solitary or paired
male flowers.

Areca catechu L.

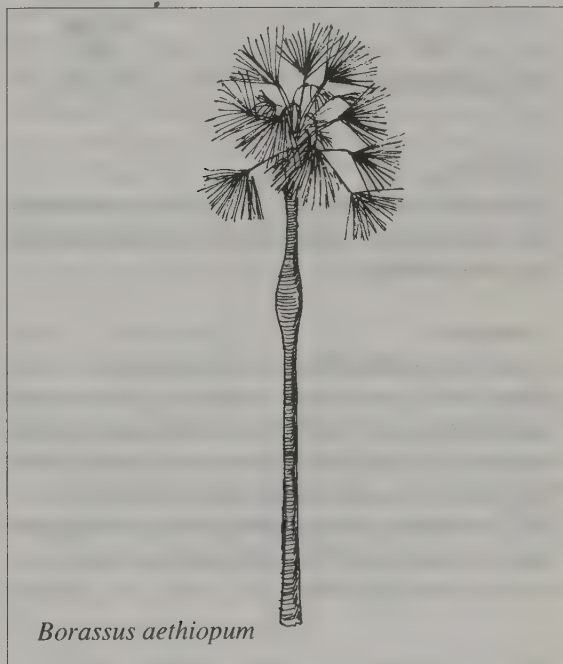
Solitary tree to 15m with a column of leafsheaths at the
top of the stem. Leaf to 2m, petiole 15cm; leaflets
about 15 pairs, each one with 3 or more folds, to 70cm
long. Male flowers about 5mm, female about 10mm;
inflorescence at first erect. Fruit yellow, orange, or
brick-red, about 5 by 3.5cm, ovoid.

K7; near sea level: *

Lamu and lower Tana R., cultivated and gone wild.
The nut is used for chewing, mixed with betel.

2. BORASSUS

Dioecious. Leaves palmate. Fruit massive, 1-3 seeded,
smooth.



Borassus aethiopum

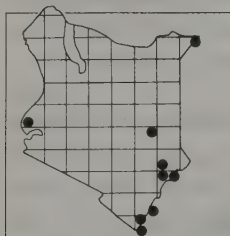
***Borassus aethiopum* Mart.**

Tree 7.5-30m, trunk 40-50cm across, with a bulge to 80cm across above the middle. Leafbases at first persistent, later leaving a scarred surface. Leafblade to 1.8m long, with many folded segments; petiole to 3.25m, edged with curved and erose teeth. Male inflorescence to 1.5m; flowers to 2mm; female inflorescence to 1.5cm; flowers to 15mm. Fruit dull orange-brown, somewhat shiny, broadly ovoid, to 12 by 14cm.

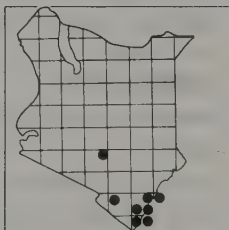
K7; 1-400m; *

In grassland with high water table or along water-courses; often in dense stands.

Borassus, African fan palm, Deleb palm (STAND), Mvomo, Mtappa, Mchapa (SWA), Ong (BON), Mvumo (DIG), Murifate (ILW), Mugumo (DUR), Marafa (ORM), Mardafa (SOM). Fruits edible, much liked by elephant and lion; leaves are used in weaving and basketry; a good palm wine can be tapped, but excessive tapping will kill the tree. The wood is termite-resistant.



Borassus aethiopum



Cocos nucifera

3. COCOS

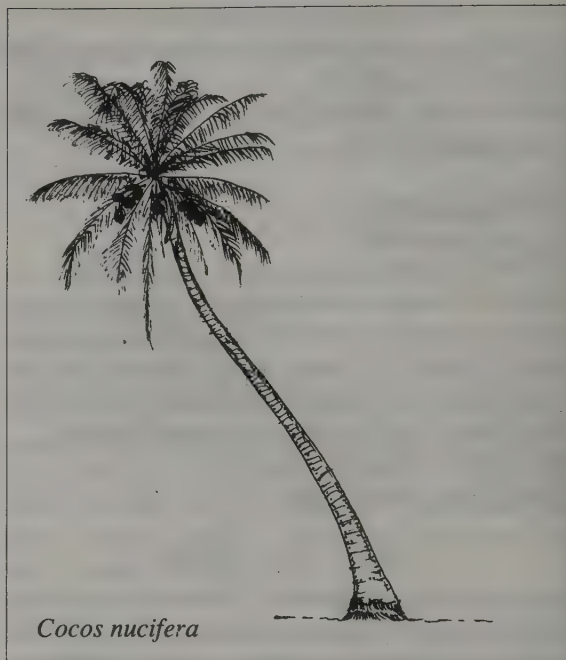
Monoecious, with pinnate leaves; leaflets with a single fold. Fruit massive, with thick fibrous outer skin and very hard endocarp.

***C. nucifera* L.**

Tree 2-30m; trunk to 80cm across, somewhat swollen at base, with conspicuous leafscars. Leaf to 4-5m long, leaflets to 100 by 2cm; petiole to 2m. Inflorescence to 1.5m long, male flowers to 13mm, female flowers to 30mm. Fruit obovoid, to 25 by 20cm.

K457; probably a native species, widely planted at the coast and gone wild from cultivation as well.

Coconut palm (STAND).

**4. ELAEIS**

Monoecious palms with pinnate leaves; leaves with spines near the base and many single-fold leaflets. Inflorescences usually female or male, sometimes mixed. Fruit 1-seeded.



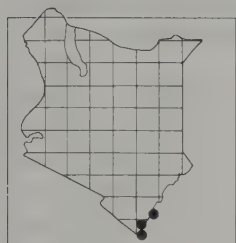
Elaeis guineensis Jacq.

Tree 2-15 (-30)m, trunk 30-50cm across, covered by the remains of the leafbases. Crown massive. Leaf to 7.5m long; leaflets many, to 120 by 8cm; petiole to 1.25m, near the apex with spine-leaflets to 4cm long. Inflorescence massive, to 30cm; female flowers to 10mm long, male flowers to 2mm. Fruit bright orange, red or black near apex, 3-5.5 by 2-3cm.

K47; 1-1500m; *

Gallery forest. Native to East Africa but planted widely for its oil-rich fruits.

Wild oil palm (STAND), Mchikichi, Mjenga (SWA), Mchanga (PKM), Metsengwa (SAN), Mposi (TAV); palm wine and fibre can be obtained from this tree.



Elaeis guineensis

5. HYPHAENE

Solitary or clustering dioecious palms; trunks usually



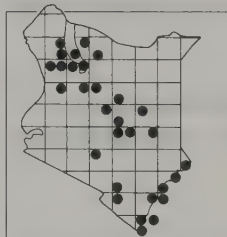
Hyphaene compressa

dichotomously branching. Leafbase partially splitting, producing a triangular cleft; petiole armed with spines, and usually carrying stellate scales; leafblade palmate, divided to about three quarters of its length into single-fold segments. Fruit 1-seeded.

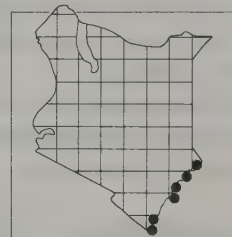
1. Palm usually much-branched; ripe fruit strongly pitted, very aromatic

1. *H. compressa*

- * Palm rarely branched more than twice, with up to 4 crowns; ripe fruit not deeply pitted, hardly aromatic
2. *H. coriacea*



Hyphaene compressa



Hyphaene coriacea

1. *Hyphaene compressa* H. Wendl.

(*H. coriacea* sensu KTS, partly)

Tree 7.5-12 (-20)m, trunks solitary or forking below ground and giving 2-4 trunks; rarely unbranched or branched only once, usually with 16-64 crowns. Trunk grey, cracked vertically, with leafscars. Leaves long-persistent, but often burnt off; blade to 80 by 125cm, divided about two-thirds into about 30 segments which are again divided at one-third; petiole 80-125cm, armed with spines to 2cm long. Male inflorescences to 1.5m long, flowers to 2mm, pale green; female inflorescences to 1.5m long, flowers to 5mm long, bright green. Fruit orange-brown to dark shiny brown, 6-12 by 4-9cm, globose or (ob)ovoid with 2 compressed faces.

K1247; 1-1400m; V, XI *

At the coast, and inland along (seasonal) watercourses. Doum palm (STAND), Mkoma, Mkoche, Mlala (SWA), Kone (BOR), Meetti (GAB), Mlala (GIR), Mezi (young), Mkoma (ILW), Mukoma (KAM), Meti (young), Kone (ORM), Dabell (young), Bar (SOM), Auwaki (SAN), Irara (TAV), Eng'oli, Eeng'ol (TUR). Leaves are used for thatching, and produce fibre for weaving. The seed is used as "vegetable ivory".

2. *Hyphaene coriacea* Gaertn.

(*H. coriacea* sensu KTS, partly; incl. *H. parvula* Becc.)

Shrub or tree 1.5-5 (rarely more), forming shrubby thickets with decumbent trunks. Stems suckering. Trunks branched once or twice; leafscars present, and often many old leafbases. Leaf 30-80cm long, divided into 15-20 segments, waxy and scaly; petiole to 70cm, with spines to 1cm long. Male inflorescence to 1m long, arching or pendent, flowers yellow, to 3mm; female inflorescences to 1m long, flowers about 2mm. Fruit brown, bell-shaped, 3-6 by 2.5-4cm, usually with a ridge on one side.

K7; 1-400m; *

On sand dunes, near creeks, much rarer inland.

Mkoma, Mkoma wapwani (SWA), Medi (BOR); uses as for *H. compressa*.

6. PHOENIX

Dioecious; leaves pinnate, with many folded leaflets. Fruit smooth, 1-seeded.

***Phoenix reclinata* Jacq.**

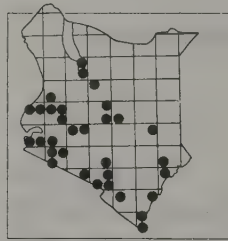
Tree 2-10m, clustering or rarely solitary. Trunk dull brown, with persistent leafbases near the top. Leaf to 3m long; leaflets many, to 50 by 2.5cm; apparent

petiole to 50cm with spine-leaflets to 6cm long. Inflorescences 20-50cm, the male ones with creamy brown flowers to 7mm, the female ones with greenish flowers to 2mm. Fruit pale yellow, orange, or dull red, 13-17 by 9-13mm.

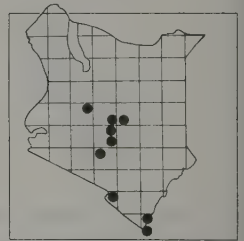
K 134567; 1-2400 (3000)m; IV, V, IX *

Along watercourses in the lowlands, higher up on open rocky hillsides and in disturbed forest.

Wild date palm (STAND); Mkindu (SWA), Gonyoorriya (BON), Meti (BOR), Mchindu (DIG), Gedo (ILW), Makindu (KAM), Mukindu (KIK), Sosiyot (KIP), Othith (LUO), Ol-tukai (MAA), Konchor (ORM), Itikindu (SAN), Alol (SOM), Mhongana (TAV), Kigangatehi (TAI), Nakadoki (TUR). Leaf-fibre is used for weaving and basketry, and occasionally in housebuilding. The fruit is edible.



Phoenix reclinata



Raphia farinifera



Phoenix reclinata



Raphia farinifera

7. RAPHIA

Solitary or clustered monoecious palms, dying after flowering. Stem massive. Leaves huge, pinnate, with many folded leaflets. Inflorescences with female flowers near base of branches and male flowers near apex. Fruit covered in scales, quite beautiful.

Raphia farinifera (Gaertn.) Hyland

[*R. ruffia* (Jacq.) Mart., *R. monbuttorum* sensu KTS]

Massive tree to 25m, trunk to 60cm across, covered with leafbases. Leaves erect or slightly spreading, to 20m long; leaflets to 100 by 8cm, with spines to 3mm long along margins and main veins. Petiole to 1.5m. Inflorescence massive, to 300 by 75cm; male flowers to 12mm, female flowers to 8mm. Fruit shiny orange or chestnut brown, ovoid or ellipsoid, 7.5-12.5 by 4-5.5cm.

K47; 1-1200m; IX, XII *

Gallery and swamp forest.

The record of this species in KTS from Yala River is uncertain.

Raffia palm (STAND); Mwaale (SWA, TAV), Mavale (TAV). Leaf fibres are used in basketry and weaving; wax is won from the lower leaf surface.

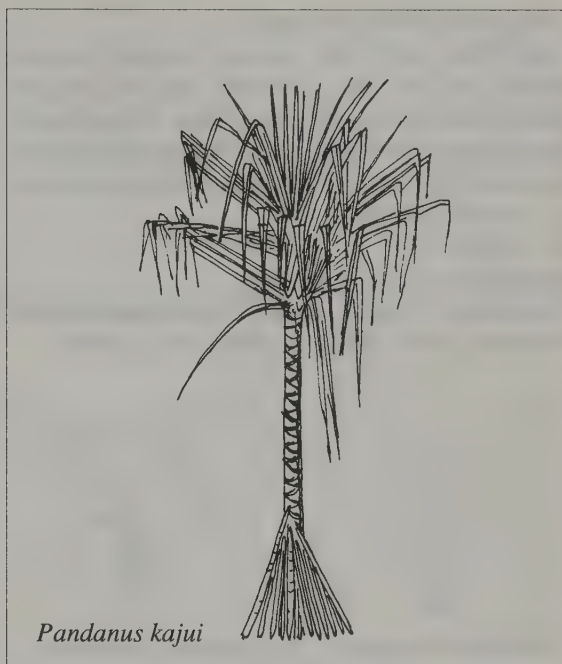
315. PANDANACEAE

Trees with aerial ('stilt') roots at base of trunk. Stems branched; leaves terminal, long and narrow. Flowers unisexual, in a spadix; monoecious. Fruit a multilocular drupe.

1. PANDANUS

1. Coastal species; carpels connate 2
- * Inland species; carpels free 1. *P. kajui*
2. Beach species, just above high water level, apex of carpels grooved, giving many sub-apices 2. *P. kirkii*
- * Inland species, near creeks and freshwater streams, apex of carpels not grooved 3. *P. rabaiensis*

1. *Pandanus kajui* Beentje ined. **VULNERABLE**
Tree 10-15m, with prop roots to 2m high; trunk slightly spiny. Bark light brown. Leaves with base clasping stem, apex attenuate, margins spiny, to 200 by 5cm; midrib spiny below. Male inflorescence white, about 20cm long consisting of about 9 partial inflorescences. Female inflorescences unknown. Fruit 9-12 by 8-10cm, covered with conical bosses.



K4; 800-1200m; IV, VIII-IX *
Riverine. Endemic to Central Kenya.
Murira (EMB).

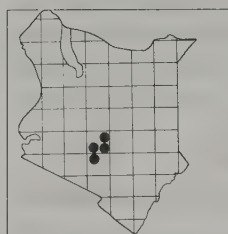
2. *Pandanus kirkii* Rendle

Tree 4-8m, with 'stilt' roots to 2m high. Leaves clasping at base, apex attenuate, margins spiny, to 200 by 6cm; midrib spiny between. Male inflorescence white, 20-35cm long, of up to 12 partial inflorescences. Female inflorescence not seen. Fruit yellow to red, massive, to 30cm long, breaking up into carpels with 6-11 conical bosses.

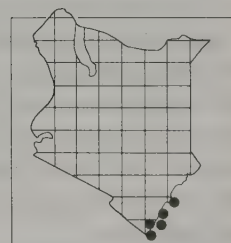
K7; 0-5m; IX-XII *

On beach just above high water mark.

Screw pine (STAND), Mkadi (SWA), Mkapu (DIG).
Leaf fibres used in basketry and matting.



Pandanus kajui



Pandanus kirkii

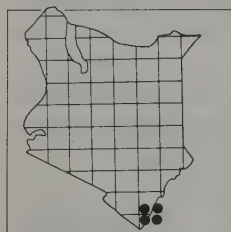
3. *Pandanus rabaiensis* Rendle

Tree 6-20m, with 'stilt' roots to 2m high. Leaves clasping at base, apex attenuate, margins spiny, to 160(±?) by 6.5cm; midrib spiny below. Male inflorescence white, about 30cm long; female inflorescence not seen. Fruit red, to 30cm across, breaking up into (?) 1-bosseed carpels.

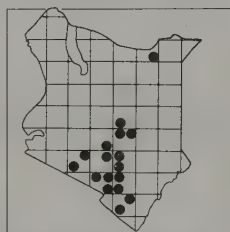
K7; 1-100m; XII *

Swampy spots, limestone rocks.

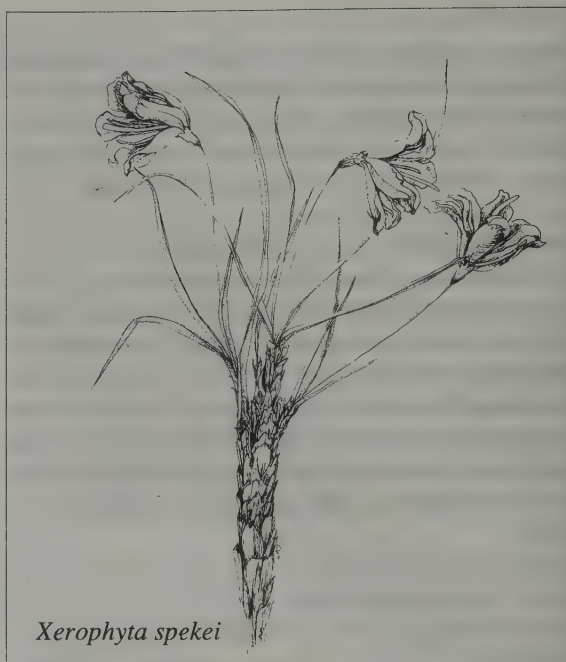
Screw pine (STAND), Msanaka (SWA), Mkapu (DIG), Mukurasa (DUR), Mkaraza (GIR). Fruit edible.



Pandanus rabaiensis



Xerophyta spekei



Xerophyta spekei

319. VELLOZIACEAE

Shrubs or herbs; stems with persistent leaf-sheaths, fibrous. Leaves fascicled at the ends of stems or branches, with cylindric leafsheath; blades narrow. Inflorescence terminal, 1-flowered. Flowers with a tube and 6 tepals (lobes). Fruit a dehiscent capsule; seeds numerous.

1. XEROPHYTA***Xerophyta spekei* Bak.**

[*Vellozia tomentosa* (Pax) Baker, *V. spekei* Baker, *V. aequatorialis* Rendle]

Shrub 0.4-2m; trunk to 13cm thick; stems much branched; leafy branches 6-12mm thick. Leaves linear, sessile on leaf-sheath, apex attenuate, 5-35 by 0.2-1.2cm, densely pubescent beneath and on the margins. Flowers 1-4 together on 2-8cm long peduncles; flowers white, turning blue-purple, lobes 20-35 by 5-8mm. Fruit subglobose, up to 15mm across, often with remnants of flower still attached.

K1467; 350-1650m; III-V, IX-XII

In crevices on steep rocky slopes; on rock pavements in dry country.

Redo (BOR), Kiandui (KAM), Rendo/Tenian (SOM),

Kideo (TAI). Used for cleaning metal pans and utensils.

332. GRAMINEAE

Of the grass family, only the bamboos warrant inclusion.

1. Leaves 6-15mm wide; found above 1800m

1. *Arundinaria*

* Leaves 25-60mm wide; found below 1500m in Western Province

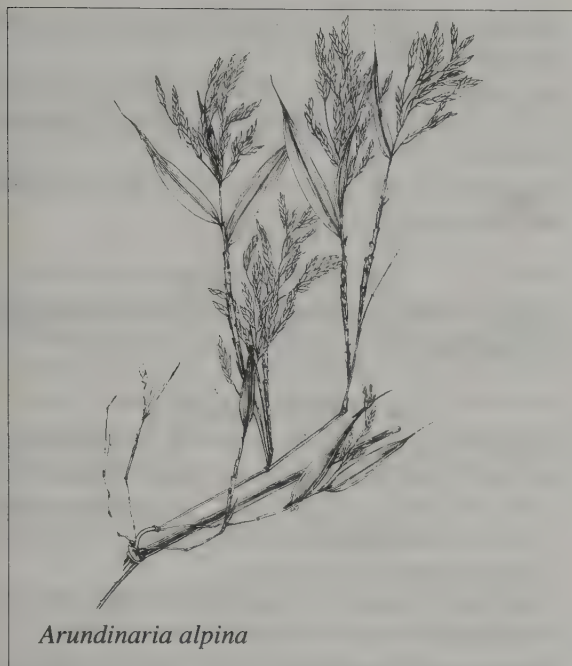
2. *Oreombambos*

1. ARUNDINARIA***Arundinaria alpina* K.Schum.**

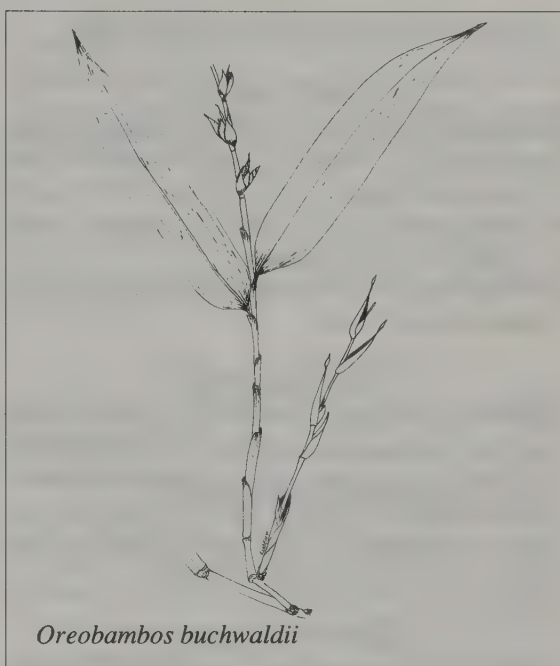
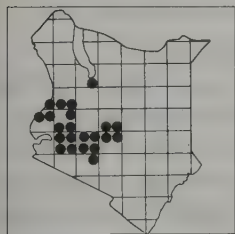
Shrubby or tree-like with woody, yellow-green culms 1-14(20)m long, 5-12.5cm across, hollow, thickened at the nodes, with small branches from the upper nodes. Culm sheaths 30-40 by 8-10cm. Leaves narrowly elliptic, gradually narrowing to a thread-like apex, 5-20 by 0.6-1.5cm, glabrous. Flowers in 1.5-4cm long spikelets, arranged in terminal panicles to 15cm long.

K13456; 2150-3300m; I-III, V-VI, VIII, X, XII.

Forming a bamboo zone on moist slopes (ca. 2400-3000 m) and occurring in small clumps in upland forest. Dies after flowering and fruiting, which occurs in patches.



Mountain bamboo (STAND), Mwanzi (SWA), Murangi (KIK), Muangi (KAM), Ol-diani (MAA), Tegaat, Terga (KIP, MAR), Tegat (NAN, NDO), Tegendet (SEB), Mrangi (TAI). Used for fencing and temporary construction.

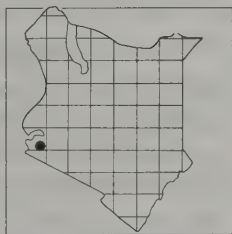


2. OREOBAMBOS

Oreobambos buchwaldii K.Schum.

Shrubby or tree-like with woody green culms 4.5-18m long, 5-10cm across, hollow, thickened at the nodes, with small branches from upper nodes. Culm sheaths about 24 by 8cm. Leaves narrowly elliptic, 10-35 by 2.5-6cm. Flowers in clusters of spikelets, these in large loose racemes.

K5; collected once at 1440m; in riverine thicket near Mariwa (Trapnell & Gwynne EA 12091.)



NAME CHANGES AND ADDITIONS

8. ANNONACEAE

Uvariadendron sp.: K7; Luke 1654, Mrima/Dzombo Expedition 207: Tree 7m, leaves narrowly elliptic, flowers cauliflorous. Fruit velvety brown, ca 35, obovate, angled, to 17mm long, ca 5-seeded. Forest; alt. 300m. Flowers in January.

Uvariadendron or *Polyceratocarpus* sp. nov. K7: Mwele mdogo: Mwele.

40. VIOLACEAE

Rinorea sp. near *R. beniensis* Engl.: Tree 4m; trunk mottled; fruit trigonous, obconical, 1 x 1 cm, glabrous. K7; 420m; Mrima/Dzombo Expedition 297: Dzombo. *Rinorea* sp. nov. Tree 3m; flowers white to yellow, with reflexed petals. Fruit trigonous, green tinged red, hairy. K7; 300m; Luke 1853: Mwele.

42. POLYGALACEAE

Carpolobia sp. near *goetzei*: A plant from K7, Mangea shows all white flowers, slightly larger than normal, with the laterals reflexed. Luke & Robertson 2191.

101. PASSIFLORACEAE

Adenia sp. nov. = Timberlake 480. Succulent climber from green perennial stem (80 x 10cm). Leaves to 15 by 10cm. Fruit inflated, globose, ca 12cm. Kudowu (POK); leaves eaten as vegetable.

Adenia sp. near *panduriformis*. K7, 90m, Kambe rocks. Anthers rounded, not apiculate.

114. OCHNACEAE

Ochna macrocalyx Oliv. Shrub to 1.8m, but usually less than 1m high. Leaves without fimbriae, not bullate and larger than in *O. insculpta*, teeth 2-3mm apart (1mm in *insculpta*). Sepals over 20mm long. Petals 30mm long. K7, 1-50m; Witu, Ras Tenewi, Gongoni.

Ochna sp. nov. (Luke & Robertson 1674). Shrub 1.5-3m; flowers in up to 1cm long inflorescences, without petals (even in bud); anthers with apical pores. Style 5-branched. Fruit ellipsoid, 8-9 by 5-6mm. K7; forest; Buda, Gongoni, Pangani, Shimoni.

121. COMBRETACEAE

Combretum homaloides Hutch. & Dalz. Scandent shrub to 4m. Flowers in terminal panicles, 4-merous.

Stamens 8, in 2 series? K7; Luke 1937, 2151; from SW Arabuko Sokoke.

Combretum holstii Engl. Shrub or liana to 7m, close to *C. mossambicense*, differs in the almost glabrous receptacle. K7; Jego.

Terminalia sp. aff. *spinosa* Found in a few sites near the Tana and near Mangea.

128. GUTTIFERAE

Garcinia ? *volkensisii* from Gongoni and Muhaka (alt. 20-45m) has the stigma white, peltate, 3-lobed.

136. EUPHORBIACEAE

Cleistanthus sp. aff. *C. michelsonii* J. Léon. Fruit on very long, dangling 10cm long peduncle; pedicels to 1.5cm. Possibly a new species. K7: Luke & Robertson 1934, near Pangani Rocks, also at Gongoni. Alt. 150m; in forest, being cut for firewood.

Erythrococca pentagyna Radcl.-Sm. is the name for what used to be *Erythrococca* sp. *C* of the FTEA.

Meineckia phyllanthoides Baill. Shrub or woody herb to 1.5m, differing from *M. fruticans* in the angled (instead of round) stems: • ssp. *capillariformis* (Vatke & Pax) Webster, K146; 750-1850m; in forest.

• ssp. *somalensis* (Pax) Webster. K12467; 50-1000m; bushland

Pentadiscus fadenii (Radcl.-Sm.) Radcl.-Sm. is now the correct name for *Savia fadenii* Radcl.-Sm.

173. CELASTRACEAE

HIPPOCRATEA has recently been split into several genera such as **SIMIRESTIS**, **LOESNERIELLA**, **APODOSTIGMA**, **PRISTIMERA**, **ELACHYPTERA**. I have been unable to incorporate these changes into the text. A new find for Kenya is *Pristimera andongensis* (Welw.) Hallé var. *volkensisii* (Loes.) Hallé & Mathew, found in K7: Gotani (200m) and Mangea (500m).

Maytenus sp. aff. *M. heterophylla* Luke & Robertson 2122 & 2136, Msafiri & Wahome 346. K7; Taru, Bamba, Marafa.

193. VITACEAE

Cyphostemma duparquetii (Planch.) Desc. A species resembling *C. jiguu*, with a succulent trunk. K7, quite common.

194. RUTACEAE

Teclea sp. nov. (Luke & Robertson 1539). K7; 1-450m; Lung'hi, M'anga.

K7; 1-50m; Kinondo, Shimoni, Tana R PR, Witu.

Vepris sp. nr *stolzii* Verdoorn

K7; Kaya Rabai.

221. EBENACEAE

Diospyros occulta F. White. Tree to 10m. Flowers cream in fascicles on old wood. Corolla 8mm with 3 lobes 2mm long K7; 1-300m; Gongoni, Buda, Mwele.

Diospyros ferrea (Willd.) Bakh. Tree to 15m with finely reticulated bark; leaves typically held upright, with slightly thickened margin. New flush coppery K7; 1-40m; Kinondo, Witu & Tana Primate Reserve..

222. SAPOTACEAE

After Pennington (1992), the Genera of Sapotaceae *Afrosalsalisia cerasifera* becomes *Synsepalum cerasiferum* (Welw.) Pennington.

Afrosalsalisia kaessneri becomes *Synsepalum kassneri* (Engl.) Pennington.

Aningeria adolfi-friedericii becomes *Pouteria adolfi-friedericii* (Engl.) Meeuse

- ssp. *keniensis* (R.E. Fries) Beentje **comb. nov.** (synonym *Aningeria adolfi-friedericii* ssp. *keniensis* [R.E. Fries] Hemsley)

- ssp. *usambarensis* (Hemsley) Beentje **comb. nov.** [synonym *Aningeria adolfi-friedericii* ssp. *usambarensis* Hemsley]

Aningeria altissima becomes *Pouteria altissima* (A. Chev.) Baehni

Bequaertiodendron natalense becomes *Englerophytum natalense* (Sonder) Pennington

Bequaertiodendron oblanceolatum becomes *Englerophytum oblanceolatum* (S. Moore) Pennington.

Malacantha alnifolia becomes *Pouteria alnifolia* (Baker) Roberty.

Pachystela brevipes becomes *Synsepalum brevipes* (Baker) Pennington.

Pachystela msolo becomes *Synsepalum msolo* (Engl.) Pennington.

Pachystela subverticillata becomes *Synsepalum subverticillatum* (E.A. Bruce) Pennington.

Pachystela taxon A is possibly *Synsepalum subcordatum* De Wilde.

228. LOGANIACEAE

Strychnos xylophylla Gilg. Shrub or tree, with glabrous branchlets; leaves elliptic, glabrous, apex apiculate; flowers 4-merous, in large axillary thyrses. Pistil glabrous. K7, Arabuko-Sokoke; 180m.

229. OLEACEAE

Chionanthus sp. Has been found at Kinondo, on the coast, and keys to *C. battiscombei*, but flowers are immature.

230. APOCYNACEAE

Landolphia eminiana Hall.f. Lap. 307, K7, Kaya Jibana; c.200m.

231. ASCLEPIADACEAE

After a revision by Goyder (1991)

Secamone alpini Schult. is a robust shrub or liana, distinct by the minute rusty hairs on young shoots and inflorescences. K4; Limuru (in 1918); upland forest.

Secamone attenuifolia Goyder is a slender liana, with lax inflorescences < 1cm across. K56; 800-1500m; ravines, rocky outcrops.

Secamone sp. A of UKWF is *S. punctulata* Decne.

Secamone retusa N.E. Br. from K7 (Arabuko) would key near *S. sansibariensis* but has broad, leathery leaves.

Secamone sansibariensis K. Schum. is considered a synonym of *Secamone punctulata* Decne.

232. RUBIACEAE

Aidia sp. A of FTEA. Tree to 10m.

K7; 40m; Gongoni Forest.

Keetia sp. nov. Scandent shrub.

K7; 40-150m; Kaya Jibana, Muhaka.

Rytigynia decussata Robertson & Luke 5183, K7, Shimba Hills, 300m.

Rytigynia sp. cf. *binata* (K. Schum.) Robyns, Robertson & Luke 4864 from Jago, 15m.

238. COMPOSITAE

Bidens holstii (O. Hoffm.) Sherff. Correct name for many specimens now called *B. kilimandscharica*.

10. KLEINIA

Erect or semi-scandent deciduous succulent shrubs.

Kleinia triantha Chiov. - K1

Kleinia scottioides C. Jeffrey - K2

Kleinia breviflora C. Jeffrey - K1346

Kleinia dolichocoma C. Jeffrey - K1

Kleinia negrii Cufod. - K1

Kleinia squarrosa Cufod. - K12457

Kleinia odora (Forssk.) DC. - K12367.

251. CONVULVULACEAE

STICTOCARDIA incompta H. Hallier

Robust climber. Leaves ovate, base cordate, apex acuminate, 7-27 by 5-20cm, white-tomentose. Flowers bright pink, 10cm across. Looks like an *Ipomoea*. K7; Msau River valley; Arabuko-Sokoke; Likoni.

S. beraviensis (Vatke) Hall.f. K 2,3,4,5; 900-1800m.

S. macalusoi (Mattei) Verdc. K7 (Mombasa).

252. SCROPHULARIACEAE

Ghikaea speciosa (Rendle) Diels

Shrub 0.5-2m with very showy, large pink tubular flowers; resembles a *Digitalis*.

K147; 250-1400m. *Acacia-Commiphora* bushland.

259. ACANTHACEAE

Justicia inaequifolia Brummitt

Shrub to 1.8m with the leaves of each pair quite unequal in size. K7; 1-300m.

263. VERBENACEAE (from FTEA)**CLERODENDRUM:**

What I called *C. buchholzii* is really *C. silvanum* Henriques var. *nuxioides* (S. Moore) Verdc.

C. cephalanthum Oliv. is a liana with dense inflorescences and long white flowers: ssp. *cephalanthum* occurs in K7 Kwale Distr., and ssp. *impensum* (Thomas) Verdc. in K7 Taita Hills.

C. dalei is a synonym of *C. incisum* Klotzsch

C. fisheri becomes *Clerodendrum robustum* Klotzsch var. *fischeri* (Gurke) Verdc.

C. johnstonii ssp. *marsabitense* Verdc. is distinct in the much less hairy leaves and the short corolla tube. K1: Marsabit.

C. rupicola Verdc. is a shrub to 3m, looking like a *Commiphora*; it is close to *C. myricoides* but is distinct in its habit and the glandular calyx. K17; 150-800m;

Acacia-Commiphora bushland at Kula Mawe, Dadaab, Kora & Tana Primate Reserve.

C. tricholobum Gurke is a shrub or scrambler to 3m, with woolly young stems, close to *C. eriophyllum* but occurring at lower altitudes. K7: Boni forest.

LANTANA *viburnoides* ssp. *humuliformis* ined. has been described as *L. humuliformis* Verdc.

Lantana rhodesiensis Moldenke becomes *L. ukambensis* (Vatke) Verdc.

Verdcourt states that hybrids between *L. ukambensis*, *L. trifoliata*, *L. viburnoides* seem common.

LIPPIA *grandifolia* A. Rich. becomes *L. abyssinica* (Otto & Dietr.) Cuf.

PREMNA *obtusifolia* is now a synonym of *P. serratifolia* L.

P. discolor Verdc. is a climber with corky stems, which differs from *P. obtusifolia* by glabrous leaves, and elliptic leaves. K7; forest at Diani, (var *daniensis* Verdc.); Vitengeni and Cha Simba. (var *discolor*)

P. gracillima Verdc. Thin shrub to 3m possibly mistaken for *P. resinosa*. K7; Mangea, Kaya Jibana.

VITEX *schliebenii* Mold. is a shrub or tree 2-10m, keying out by the slightly scabrid leaves, which are brown-hairy underneath. K7; Kurawa and Kiunga.

Illustration acknowledgements

THE PLATES IN THIS BOOK WERE MADE BY THE FOLLOWING ILLUSTRATORS:

Dhan Bhanderi: Acanthaceae (p.p.), Amaranthaceae, Annonaceae, Apocynaceae (p.p.), Aquifoliaceae, Aristolochiaceae, Asclepiadaceae (p.p.), Berberidaceae, Bignoniaceae, Capparaceae (p.p.), Dichapetalaceae, Dilleniaceae, Euphorbiaceae (p.p.), Loganiaceae, Meliaceae, Menispermaceae, Montiniaceae, Moraceae, Myricaceae, Nyctaginaceae, Phytolaccaceae, Piperaceae, Pittosporaceae, Podocarpaceae, Polygonaceae, Proteaceae, Ranunculaceae, Rosaceae, Rutaceae, Salicaceae, Sapindaceae (p.p.), Thymeleaceae, Turneraceae, Ulmaceae, Urticaceae, Verbenaceae, Violaceae.

H.J. Beentje: all key and glossary illustrations, Alangiaceae, Aloeaceae, Apocynaceae (Strophanthus), Burseraceae (Commiphora plates, after FTEA), Cornaceae, Cupressaceae, Dracaenaceae, Euphorbiaceae (full page plates, after FTEA), Goodeniaceae, Labiatae (p.p.), Lauraceae (p.p.), Menispermaceae (p.p.), Monimiaceae (Xymalos, after FTEA), Moraceae (Ficus leaves, Ficus), Musaceae, Myrsinaceae, Palmae, Zamiaceae.

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Catherine Gullick: Compositae (Tithonia, Vernonia).

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Fred Ludenyi: Anacardiaceae (p.p.), Araliaceae (p.p.), Connaraceae (p.p.), Euphorbiaceae (p.p.), Gramineae (Oreobambusa), Mimosaceae (p.p.), Papilionaceae (p.p.), Rubiaceae (p.p.), Sapotaceae (Pachystela).

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Mary Nicholas: Caesalpiniaceae, Canellaceae, Chenopodiaceae, Crassulaceae, Dilleniaceae, Hernandiaceae, Lythraceae, Melianthaceae, Moringaceae, Ochnaceae, Opiliaceae, Papilionaceae (p.p.), Polygalaceae, Portulacaceae, Rhamnaceae, Sapindaceae (p.p.), Tamaricaceae.

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Juliet Williamson: Asclepiadaceae (p.p.), Ebenaceae (Diospyros), Labiatae, Papilionaceae (p.p.), Rutaceae (Zanthoxylum), Scrophulariaceae, Simaroubaceae.

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LOCAL NAMES INDEX

Language	abbreviation	page			
ATESO	ATE	651	MARAKWET	MAR	674
BAJUN	BAJ	651	MERU	MER	675
BONI	BON	651	NANDI	NAN	676
BORAN	BOR	652	NDOROBO	NDO	677
CHAGGA	CHA	654	NJEMPS	NJE	678
CHERANGANI	CHE	654	OKIEK	OKI	678
DASSENACH	DAS	654	ORMA	ORM	678
DIGO	DIG	654	POKOMO	PKM	679
DURUMA	DUR	655	POKOT	PKT	679
ELGEYO	ELG	656	RENDILLE	REN	680
ELGONY	ELGONY	656	SAMBURU	SAM	681
EMBU	EMB	656	SANYA	SAN	683
GABBRA	GAB	656	SEBEI	SEB	683
GIRIAMA	GIR	657	SOMALI	SOM	684
ILWANA (MALAKOTE)	ILW	658	STANDARD NAME	STAND	686
KAMBA	KAM	659	TRADE NAME	TRADE	686
KIKUYU	KIK	662	SWAHILI	SWA	688
KIPSIGIS	KIP	665	TAITA	TAI	692
KISII	KIS	667	TAVETA	TAV	693
LUHYA	LUH	668	TIRIKI	TIR	693
LUMBWA	LUM	669	TUGEN	TUG	693
LUO	LUO	670	TURKANA	TUR	694
MAASAI	MAA	671	WATENDE	WAT	696

Note that all scientific plant names in this index have been abbreviated: the genus name is complete, but the second part, the species epithet, has been shortened to 3 or 4 letters.

ATESO		Botha	Nectaropetalum	Mangula	Strychnos spin
Ekiira	Acanthus pube	Bullabulla	kaes	Manomoka	Pavetta spha
Ekisim	Acacia hock	Buruu	Rinorea ilic	Mawachondovu	Oncoba spin
BAJUN		Cate	Erythrina saci	Mbabare	Terminalia samb
		Chona	Anisotes tana	Mbambara	Oldfieldia soma
		Darab	Lasioliscus frax	Mbarimkut	Asteranthe aste
Mapumbi	Lecaniodiscus frax	Darre	Sterculia afri	Mbauri	Oldfieldia soma
Mbabenzi	Cassipourea eury	Den	Gyrocarpus amer	Medi	Hyphaene comp
Mbembakoshi	Erythrina saci	Edamajo	Kraussia kirk		Hyphaene cori
Mchawanda	Markhamia zanz	Gamsodu	Mostuea micr	Merfured	Dombeya tayl
Mchumbikihuku	Haplocoelum inop	Gogiza	Maytenus moss	Mfret	Apodytes dimi
Mfukuruku	Lindackeria buko	Gomojia	Haplocoelopsis afri	Mgagini	Asteranthe aste
Mkengewa	Acacia poly	Gonjourriya	Lawsonia iner	Milanje	Dombeya tayl
Mkowasi	Grewia glan	Gorguo	Phoenix recl	Mkaligote	Vitex ferr
Mkungu-wazimu	Hibiscus tili	Gusa	Hoslundia oppo	Mkalijote	Vitex memb
Mkwamba-keregende	Elaeodendron	Halas	Pleurostylia afri	Mkulangi	Cassipourea euge
			Uvaria denh	Mlambale	Thespesia dani
			Uvaria luci	Mlamote	Annona sene
Mlalozi	Combretum acul	Hobocho	Albizia anth	Mlange	Carpodiptera afri
Mlanate	Turraea nilo	Hurub	Dobera glab	Mpotsho ndovu	Ormocarpum kirk
Mlawisha	Triainolepis afri	Idamudu	Rhus nata	Mrongoleh	Ekebergia cape
Mnanyadia	Ehretia bake	Ina-eh-leh	Lonchocarpus buss	Msativu	Dichrostachys cine
Mpotowandovu-mkuu	Ekebergia	Jah	Adansonia digi	Msingoni	Dichrostachys cine
		Jamagi	Afzelia quan	Mtongi	Thylachium afri
Mtambai-yongoo	Ehretia peti	Kang	Cassia abbr	Mugurure	Combretum schu
Mtchunda-kula	Ximenia amer	Katodon	Drypetes nata	Mukai	Tamarindus indi
Mtengewa	Acacia sene	Keborr	Cladostemon kirk	Mulilago	Antidesma veno
Mtetewe	Acacia nilo	Kedula	Ozoroa obov	Mulimuli	Carissa edul
Mturaki	Manilkara sulc	Keked	Bivinia jalb	Munarui	Milicia exce
Mukorobasha	Grewia vill	Kepaho	Holarhena febr	Muroro karachi	Nesogordonia holt
Mundamo	Drypetes nata	Keruki	Ehretia bake	Ndani	Hunteria zeyl
Mvumanjuki	Lawsonia iner	Keunya	Cadaba fari	Ngagna	Clerodendrum inci
Ukwayu	Tamarindus nilo	Kihere	Rauwolfia memb	Njovu	Rinorea arbo
Warendi	Manilkara moch	Kina	Erythrophloeum	Nothake	Capparis sepi
BONI			suav	Ong	Borassus aeth
		Kionge	Cassia afro	Ornica	Hyphaene comp
Ababeu	Bridelia cath	Kokonye	Catunaregam nilo	Ram-ed	Afzelia quan
Abodi	Psychotria ambo	Komochi	Lawsonia iner	Sabuni	Harrisonia abys
Abozi	Brachylaena huill	Korrie	Strychnos mada	Samachi	Dalbergia mela
Atame	Cussonia zimm	Kukadshi	Mystroxydon aeth	Shelole	Kigelia afri
Avud	Brachylaena huill	Kuling	Balanites wils	Sheshubla	Dialium orie
Babbora	Jateorhiza palm	Kullami	Pavetta line	Shola	Pteleopsis tetr
Baihebe	Milletia lasi	Kurag	Manilkara sulc	Siricha	Populus ilic
Balabala	Combretum buty	Kurahi	Fernandoa magn	Susa	Pleurostylia afri
Balmut	Suregada zanz	Kurkoi	Gardenia tern	Tielle	Encephalartos hild
Ban-yorboi	Abrus prec	Lama	Synaptolepis kirk	Tokohoji	Haplocoelum inop
Bangoe	Ozoroa obov	Leh-heli	Terminaliakili	Tomorr	Uvaria acum
Baraidi	Euphorbia cand	Longhi	Monanthotaxis	Tsiria	Scutia myrt
Barranad	Croton pseu	Ma-oth	forn	Tuari	Newtonia erla
Basuba	Vernonia hild	Maddidi	Euclea nata	Tumone	Triumfetta rhom
Boria	Erythrina saci	Mangales	Gnidia lati	Vugu	Erythrina saci
			Garcinia livi	Wahari	Lannea schw

Yamoozi Tabernaemontana
eleg

BORAN

For several of these names I am indebted to Mr. Dennis Herlocker.

Abareta	Bottegoa insi	Butyye	Acacia hock	Ejass	Olea euro
Abertabat	Bauhinia tome	Chaba karama	Acacia elat	Elam	Lawsonia iner
Abras	Turraea parv	Chachalleh	Vangueria mada	Embe	Ipomoea cica
Abratu	Cussonia hols	Chachanneh	Dracaena elle	Falkocha	Maytenus putt
Abune	Blepharispermum lanc		Dracaena elle	Finchiriss	Jatropha parv
Adama	Euphorbia cand		Ormocarpum keni	Fito	Rinorea conv
Adi	Salvadora pers	Chachanneh-arit	Ormocarpum tric	Fonkocha	Maytenus putt
Agagarra	Justicia cord	Chamviji	Ormocarpum muri	Fonkole	Carissa edul
Agarnyap	Maerua denh	Chana	Turraea momb	Furs(h)	Lycium euro
Akoku	Oncoba spin	Chersi	Combretum acul	Gabbe	Vatovaea pseu
Aldakharo	Solanecio angu	Chobi badesu	Acacia horr	Gadah	Zanthoxylum chal
Algi	Justicia odor	Chobi kawra	Acacia nubi	Gadala	Psychotria kirk
Alkabess	Acacia etba	Choppi	Acacia stuh	Gadi bera	Caucanthus albi
Alu hanko	Heteromorpha trif	D'irri	Acacia turn	Gadida	Allophylus afri
Ammess	Commiphora afri	Dabasso	Acacia paol	Gadu	Cadaba gill
Ammess homacho	Commiphora kua		Grewia flav	Gale	Kedrostis gije
Anchabbi	Ocimum suav	Dadacha	Haplocoelum foli		Rhamnus stad
Andarak	Lannea riva	Dadessa	Dobera glab	Galgacha	Maerua cras
	Lannea trip	Dagams	Cissus aphy	Galgacha hare	Boscia cori
Angule	Commiphora ten	Dahbabes	Cissus rotu	Galgatcha	Boscia tome
Ano	Euphorbia cala	Daisa	Kedrostis gije	Gali	Psydrax schi
	Solanum arun	Daka daees	Croton soma	Galkash	Lonchocarpus buss
Anona	Trichilia emet	Daka daha	Boswellia micr		Gardenia volk
Arobera	Grewia bico	Dakkara	Commiphora elle	Gambe	Gardenia volk
Arsa	Euphorbia cryp	Dakkidah	Acacia tort	Gambeila	Ozoroa insi
Aru	Juniperus proc	Dakkidau	Premna resi	Garri	Dobera glab
Babobess	Rhus nata	Daleya	Carissa edul	Garse	Turraea barb
Badanna	Balanites rotu	Dalol	Ximenia amer	Geshirib	Olinia roch
Baddan	Balanites aegy		Sesbania sesb	Godgodob	Opilia camp
	Balanites rotu	Damayio	Boswellia micr	Godgodub	Opilia roch
Balanga	Delonix bacc	Dambi	Commiphora boiv	Goldigoloba	Opilia camp
Bamba	Melia volk	Dargu	Boswellia negl		Acacia brev
Barbarisa	Plectranthus igni	Dargun	Commiphora edul	Gorgor	Caesalpinia trot
Baresa	Terminalia brow	Deka (h)	Commiphora edul		Capparis cart
Barich	Ochna iner		Ipomoea dona	Gorra	Capparis tome
Biche	Commiphora sp.	Didissa	Calyptrotheca soma	Gorrah gel	Cissus cact
Biess	Terminalia kili	Dimit	Boscia mini	Gorsa guraj	Tamarindus indi
Bisdugha	Kirkia tenu	Diraa	Ficus thon	Groha	Populus ilic
Bissik	Terminalia orbi	Dirrewarsessa	Leucas tome	Guduba	Capparis fasc
Boria	Albizia amar	Dogome	Rhinacanthus pulc	Gura gala	Harmsia sidi
Boriya	Gyrocarpus haba	Dugh	Grewia temb	Gurbi ola	Triumfetta flav
Bura	Acacia goet	Dumasso	Grewia tena	Gurgur	Casalpinia erla
Burbur	Carphalea glau	Durte	Sclerocarya birr	Habrota	Wrightia dema
Burguge	Acacia nilo	Duse	Acacia sene	Habuni	Bidens hild
			Commiphora rost	Hagar niama	Maerua edul
			Phyllanthus soma	Hagar nyab	Maerus subc
			Grewia simi	Hagarinyap	Cadaba fari
			Cadaba glan	Haggersu	Commiphora balu
			Boscia mini		Commiphora holt
			Salsola dend		Commiphora pseu
			Cadaba hete	Haggersu-ferda	Commiphora hild, oga

Halo	Acacia buss	Kangalsha	Euphorbia joya	Marajis	Strophanthus mira
Halubu	Adenium obes	Kara	Strychnos henn	Marna	Cocculus pend
Hamesa-niata	Commiphora sara	Kararu	Acokanthera schi	Masakaiya	Commiphora schi
Hamesa	Commiphora camp	Karo	Vepris glom	Matbot	Cissus cact
	Commiphora conf	Karra	Erythroxylum emar	Matta but	Boswellia riva
Hames-dirah	Commiphora sam	Karrah	Strychnos henn	Meti	Phoenix recl
Hames-Hamacho	Commiphora sen	Karro	Bridelia cath	Miesa	Euclea race
Hammaress	Acacia brev		Bridelia tait	Mike	Teclea simp
Hammess	Commiphora afri	Kate	Lantana trif	Mogof	Croton pseu
Handarak	Lannea riva	Khaddi	Cadaba fari	Mogoff	Croton dich
	Lannea trip	Khobole	Croton meny	Mogole	Boswellia micr
Harowessa	Grewia bico	Khorobbo	Terminalia spin	Mokh lidi	Boswellia micr
Hawacho	Albizia anth	Khumbi	Commiphora elle	Morudo	Grewia vill
Hidda	Euphorbia cune	Kibdi shan	Steganotaenia aral	Mukanisa	Croton macr
Hiddi gaaga	Solanum rens	Kilta	Ficus glum	Mukhudu-nyuma	Calypotrotheca soma
Hidesa	Dodonaea angu		Ficus vast	Mukinu chuma	Vernonia aura
Hidigaga	Withania somn		Ficus wake	Mukriga	Bauhinia tait
Homhom	Terminalia parv	Kimili	Croton tala	Mukuduyuma	Cordia sp.
Horrdobbo	Terminalia parv	Kobor	Ricinus comm	Mutiye	Ormocarpum trac
Huda	Salvadora pers	Kodi	Caesalpinia eria	Napo	Croton mega
	Ximenia amer		Parkinsonia scio	Nyapo	Croton mega
Hundad	Entada lept	Kone	Hyphaene comp	Obbe	Adenium obes
Huri	Indigofera bind	Konkomma	Turraea fisc	Odaa	Ficus sur
Hwacho-dima	Acacia xant	Konkon	Combretum here		Ficus syco
Idado	Acacia sene	Koombi	Commiphora sp.	Ogomdi	Grewia fall
Idd	Solanum arun	Korabo	Terminalia poly	Ogumdi	Grewia vill
Idda	Euphorbia cune	Korkore	Tarenna grav	Osilli	Ipomoea spat
Iddi gaaga	Solanum inca	Korobo	Terminalia prun	Pika	Pappaea cape
	Solanum indi	Kossaye	Givotia gosai	Qadhu	Capparis cart
Idigaga	Withania somn	Kukupe	Maerua denh	Qadu	Thylachium thom
Ile	Lannea schu	Kumbi	Commiphora myrr	Qalqualch	Maerua denh
Ilkabat	Boscia sp.	Kurkurrah	Ziziphus maur	Qalqualch quanchara	Boscia keni
Ilqabat	Cadaba rusp	Kurrah	Boswellia riva	Qotte	Cordia oval
Imbiloi	Jatropha dich	Kurrana	Dovyalis abys	Quaquara	Ziziphus maur
Iocho	Diospyros scab	Kurru	Sesbania quad	Qurqura	Ziziphus abys
Iri-waseso	Phyllanthus sepi	Ladana	Canthium pseu	Rabban	Wrightia dema
Jabo karama	Turraea memb	Lafatu	Sesamothamnus	Rabiya	Cassia abbr
Jajaba	Bridelia micr		riva	Raga	Harrisonia abys
Jalanga	Commiphora habe	Lalafto	Sesamothamnus	Redo	Xerophyta spek
Jejaff	Ochna inse		buss	Riga-keiro	Commiphora bora
Jirime	Dichrostachys cine	Lalaftu	Sesamothamnus	Rogich	Indigofera bind
			riva	Roho	Diospyros abys
Jirmocho	Ipomoea dona	Logo	Diospyros abys	Rokess	Combretum moll
Kaikai	Maerua angu	Loloso	Dolichos oliv	Sabans	Acacia nilo
Kakalla	Pentas parv	Lugalekeh	Steganotaenia aral	Saban sable	Platycelyhium
Kalakatcha	Maerua trip	Made(h)r	Cordia nerv		voen
Kalalue	Euphorbia brev	Madeloni	Cordia sp.	Saban sadeema	Acacia nilo
Kalkadha	Ruttya frut	Mader	Cordia oval	Saeteh	Terminalia spin
Kalkaj	Boscia angu	Malsamala	Dalbergia mela	Safara	Moringa sten
Kalkaj dumao	Maerua trip	Manjabbi	Ocimum suav	Saije	Commiphora dan
Kalkaj-domaio	Maerua cras	Mara sisa	Clerodendrum	Sanga igu	Commiphora sam
Kalkalch	Boscia mini		myri	Sangomsa	Adenia vene

Sarba arb	Adenia vene	CHAGGA		Kipanderua	Cola mino
Saricho	Spirostachys vene			Libugu	Strychnos pang
Sarim	Duosperma erem	Maangwe	Dovyalis abys	Mbanda-tchitswa	Allophylus rubi
	Justicia odor	Mrega	Scutia myrt	Mbani	Trimeria gran
Sato weysi	Platycelyphium	Tele	Xymalos mono	Mbarafu	Preemna cong
	voen			Mbavubavu	Rinorea ferr, Gre- wia forb
Sheikhboh	Euphorbia jatr	CHERANGANI		Mbogaboga	Chassalia umbr
Sichacho	Commiphora oga			Mbogaboga	Psychotria laur
Sigirso	Acacia etba	Boria	Maesa lanc	Mbohoya	Ancylobotrys pete
	Acacia refi	Cheluptet	Cussonia spic	Mbohoya	Ancylobotrys tayl
Sije	Comiphora dan	Erwa	Maerua kili	Mbohoya	Dictyophleba luci
Sililach	Dombeya kirk	Kibatwa	Neoboutonia macr	Mbokwe	Annona sene
Siltacho	Commiphora kua	Kiptarregon	Protea gagu	Mbonobono	Harungana mada
Siricho	Ficus cord			Mbonobono	Trema orie
	Spirostachys vene	DASSENACH		Mburuga	Caesalpinia volk
Siskar	Clausena anis			Mbwale	Dombeya tayl
Sisub	Bottegoa insi	Alung	Cadaba rotu	Mchindu	Phoenix recl
Sitoweysa	Platycelyphium	Myue'deh	Cordia quer	Mchofi	Bruguiera gymmn
	voen	Nyetheh	Salvadora pers	Mchungwa koma	Suregada zanz
Sofarra	Moringa long	Zoorich	Boscia cori	Mdimutsaka	Olax obtu
Sottawesa	Platycelyphium			Mdobe	Pentas buss
	voen	DIGO		Mdokadoka	Cissus rotu
Sukela	Delonix elat	With thanks to Mr. Robert Schmidt, for his careful checking and corrections.		Mdudu	Bridelia micr
Tafa lila	Pyrenacantha kaur			Mdzengatsongo	Antidesma veno
Tafilil	Adenia acul	Chibalazi mlungu	Desmodium velu	Mdzinyadziya	Maytenus moss
Takadawa	Wrightia dema	Chibombocherero	Tabernaemontana eleg	Mfidjofidjo	Drypetes nata
Tatessa	Premna resi			Mfidzofidzo	Tarenna litt
Tichacho	Commiphora conf			Mfudu	Vitex payo
Tile	Lannea schu	Chibugu	Jasminum stre	Mfudukoma	Vitex momb
	Melia volk	Chigundigundi	Acacia nilo	Mfudukoma	Vitex stri
Tirai	Commiphora rost	Chikwata	Acacia sene	Mfudumadzi	Vitex momb
Tirro	Pyrostria phyl	Chimwemwe	Gardenia poso	Mfumbiri	Lonchocarpus buss
Tuc ha	Cadaba glan	Chipalika	Margaritaria disc	Mgoa	Ixora spp
Tutu	Anisotes parv	Chipunyuk mari	Abutilon maur	Mgore	Adenia gumm
	Anisotes tana	Chitadzi	Ormocarpum kirk	Mguoguo	Antiaris toxi
Uldig	Caucanthus albi	Chitsambawe	Cola clav	Mikwanga	Dracaena usam
Urrurr	Lawsonia iner	Chitsambawe	Cola mino	Mjasasa	Lantana cama
Viga	Bauhinia tait	Chiwaatsa	Vernonia hild	Mkapu	Pandanus kirk
Wa-anreh	Lannea alat	Chiwaatsa	Vernonia zanz	Mkapu	Pandanus raba
Wacho	Acacia zanz	Chiwalakanga	Mystroxyton aeth	Mkere	Monodora gran
Wacho-dima	Acacia seya	Chiwewe	Pseuderanthemum hild	Mkitaji	Ormocarpum kirk
Wachu-adi	Acacia seya			Mkone	Grewia hols
Waddessa	Cordia afri	Fuka mwitu	Vernonia colo	Mkonga	Mallotus oppo
Walena	Erythrina mela	Ganga	Euphorbia cand	Mkonje	Dracaena usam
Walensu	Erythrina mela	Humbolanguuwe	Dalbergia mela	Mkua	Paramacrolobium coer
Wanga(i)	Acacia nubi	Humbolanguuwe	Dalbergia vacc	Mkulu	Diospyros corn
Wara	Euphorbia cune	Kibombo	Tabernaemontana pach	Mkulu	Syzygium guin
Wario	Gyrocarpus haba			Mkuna-mbeka	Inhambanella henr
Watu	Senna bica	Kidimu tsaka	Teclea tric	Mkunguma	Sorindeia mada
Wori-gidda	Abrus schi	Kidori	Harrisonia abys	Mkunguma	Sorindeia mada
Yirinoh	Asepalum eria	Kikombe cha chui	Toddalia asia		
		Kingade	Mkilua frag		
		Kipanderua	Cola clav		

Mkuta manena	Phyllanthus delp		viri	Munwa madzi	Trichilia emet
Mkuwa	Julbernardia magn	Mtsamvia	Pachystela msol	Munwamadzi	Rhoicissus trid
Mkuyu	Ficus lute	Mtsani	Albizia adia	Munyondoya	Flacourtia indi
Mkwaju	Tamarindus indi	Mtsani-ndovu	Albizia vers	Munyunzu	Keetia spp.
Mkwakwa	Strychnos mada	Mtserere	Hoslundia oppo	Munyunzu	Kraussia spec
		Mtsokolangongo	Maytenus sene	Murawana	Didymosalpynx
Mkwamba	Phyllanthus reti	Mtsonga mahana	Brackenridgea		nora
Mkwe	Julbernardia magn		zang	Muriga	Smilax ance
Mkwe	Julbernardia magn	Mtsonga mwiko	Crossopteryx febr	Murindazia	Harungana mada
Mlala	Diospyros gree	Mtsonga nyomba	Cremaspora trif	Murusapungu	Clerodendrum inci
Mlala	Euclea nata	Mtsonga nyomba	Polysphaeria parv	Murusapungu	Premna hols
Mlashozi	Psorospermum	Mtsunduzi	Croton sylv	Mutambuu	Celtis phil
	febr	Mtsunga mbuzi	Apodytes dimi	Mutiakwembe	Commiphora edul
Mleha	Newtonia pauc	Mtunda ofu	Jasminum flum	Mutseketse	Piliostigma thon
Mlula	Vitex zanz	Mtunda ofu	Jasminum meye	Mutsongama hana	Ochna thom
Mnanda	Vitex zanz	Mtundukula	Ximenia amer	Muvamva	Millettia usar
Mnapo	Ophrypetalum	Mtungudza koma	Solanum inca	Muziahi	Syzygium guin,
	odor	Mtupa	Tephrosia voge		cord
Mndondu	Stereospermum	Muawa	Pteleopsis tetr	Mviru	Vangueria infa
	kunt	Mubalazi	Bourreria nemo	Mvuma	Premna chry
Mngambo	Manilkara sans	Muchimi wa tsakani	Teclea simp	Mvumo	Borassus aeth
Mngongo	Sclerocarya birr	Muchu	Ochna moss	Mvunjakondo	Allophylus nilo
Mnungwinyungwi	Cordyla afri	Mudimu tsaka	Allophylus perv	Mvunza jembe	Alchornea laxi
Mnwaka puza	Deinbollia borb	Mudzala	Monanthotaxis	Mvure	Milicia exce
Mnyala	Cussonia zimm		tric	Mwachero	Cissus quad
Mnyapala	Clausena anis	Mudzala	Uvaria acum	Mwadzani	Urera fisc
Mongo wa mbule	Pappaea cape	Mudziyadziya	Maytenus buch	Mwagaivu	Stereospermum
Moyo-ngondo	Barringtonia race	Mufurihi	Entada purs		kunt
Moza nyama	Ehretia bake	Mugandi	Ficus buss	Mwangala nyuchi	Abrus pret
Moza nyama	Turraea flor, nilo	Mugarisi	Adenia glob	Mwawa	Hirtella zanz
Mpalawanda	Markhamia zanz	Mugelekele	Crotalaria axil	Mworongondo	Barringtonia race
Mpera	Vismia orie	Mugolokolo	Calpurnia aure	Mwoza nyama	Turraea flor
Mperamwitu	Coffea pseu	Mugongolo	Combretum schu	Myenze	Parkia fili
Mpesi	Phyllanthus soma	Mugore	Adenia gumm	Mzereru	Schlechterina mito
Mpingo	Dalbergia mela	Mugoza	Sterculia afri	Mzigande	Dracaena usam
Mpwakapwaka	Blighia unij	Mugwa nyahi	Rhus nata	Mzongozongo	Catunaregam nilo
Mpwakapwaka	Chytranthus obl	Muhonga	Strychnos spin	Tupa	Synadenium pere
Mrihi	Brachystegia spic	Muhumba	Cassia abbr	Umarere	Erythrococca fisc
Mrihi	Paramacrolobium	Muhumba	Senna sing	Utudi	Euphorbia tiru
	coer	Muhumba	Senna sing	Vumba manga	Ocimum suav
Mrondaronda	Turraea nilo	Mukalafisi	Tetracera boiv	Watsa	Vernonia zanz
Mruana	Jasminum meye	Mukamasi	Psychotria ambo	Zombola nyungu	Solanum goet
Msai	Grewia glan	Mukokotsaka	Harungana mada		
Msalakuse	Leptonychia usam	Mukuwa	Julbernardia magn		
Msalasanga	Ozoroa obov, reti	Mukwakwa	Strychnos mada		
Msandarusi	Hymenaea verr	Mulangalanga	Fernandoa magn	Kifungazanzau	Scorodophloeos
Msangasanga	Ozoroa insi	Munawana	Psychotria schl		fisc
Msokote	Grewia caly	Mungowengowe	Apodytes dimi	Madungatunda	Flacourtia indi
Mtanda	Dichapetalum	Mungugune	Ziziphus mucr	Manga msuri	Terminalia brev
	aren	Mungweni	Afrosersalisia	Mfunda	Cynometra suah
Mtandara	Mostuea brun		kaes	Mgalla	Erythrina abys
Mtanga	Spirostachys vene	Mungweni	Uvaria luci		Erythrina sacl
Mtobwe	Chrysophyllum			Mgundi	Acacia nilo

DURUMA

		EMBU		Burraa	Acacia goet
Mpawe	Gnidia lati			Butte	Dracaena elle
Msandusi	Croton pseu	Ki-ari	Maerua kirk	Buutiyye	Ormocarpum tric
Msarakana	Spirostachys afri	Kirere	Pentas parv	Chaachanne	Acacia paol
Msufi mwitu	Gossypoides kirk	Kitherema	Lannea trip	Chachanneh-arit	Acacia paol
Mtanga	Spirostachys vene	Kwareu	Sterculia sten	Challankaa	Commiphora habe
Mtsonga-mbanga	Boscia sali	Kyatha	Synadenium comp	Chanchali	Combretum acul
Muawa	Gyrocarpus haba	Makoli	Ocimum kili	Dabobbessa	Rhus nata
Mugoto	Combretum moll	Makonda ya mburi	Helinus myst	Dagamsa	Carissa edul
Mugumo	Borassus aeth	Moo	Markhamia lute	Dakadaa	Coomiphora dul
Mukurasa	Pandanus raba	Mramba	Euphorbia cuss	Dakkara	Boswellia negl
Mulolwe	Carissa edul	Mtorgortorgor	Tapiphyllum schu	Deekuku	Cadaba fari
Mulowe	Carissa edul	Mugumo	Ficus thon	Daddacha	Acacia tort
Munga	Acacia elet	Mukunguu	Erythrina mela	Deekaa	Grewia tena
Musansanza	Sorindeia mada	Munyanwe	Harungana mada	Dirri	Croton soma
Mushoka	Heinsia crin	Muraci	Lannea schw	Dumasho	Maerua cras
Muyamavi	Ehretia bake	Murira	Pandanus kayu	Durtee	Suaeda mono
Mwandiga	Adenium obes	Murithi	Combretum coll	Ejerssa	Olea euro
Myandakanda	Lecaniodiscus frax	Mururuka	Combretum coll	Fito	Rinorea conv
		Mururuku	Terminalia brow	Fursaa	Lycium euro
		Mushishuna	Rhus rusp	Gaabe	Vatovaea pseu
		Mushugushugu	Aeschynomene abys	Gaalle	Kedrostis gije
				Gaddaa	Zanthoxylum chal

ELGEYO

Aoun	Polyscias kiku	Mutagataga	Harrisonia abys	(H)afuursaa	Maerua spp.
Benet	Podocarpus falc	Mutangu	Agelaea hete		Cadaba mira
Boloet	Dombeya torr	Muthandambogo	Capparis sepi	Halam	Lawsonia iner
Bumondet	Olea cape	Muthingira	Acacia mell	(H)allakabeesa	Acacia etba
Chepberikororiet	Hypericum revo	Muthioya	Ixora sche	(H)ammeessa	Commiphora afri
Chepkarelyon	Trimeria gran	Muthithio	Antidesma veno	(H)arkeena	Euphorbia hete
Chepkaset	Lobelia gibb	Muthiu	Boscia cori	(H)arorressa	Grewia tric
Chepkoberet	Hypericum revo	Muthura	Ocotea usam	(H)idaa	Euphorbia cune
Cheptoya	Maytenus unda	Mutungu	Lannea alat	(H)iddi loonni	Solanum inca
Kakaruet	Schrebera alat	Mutungurute	Maerua endl	Hikho	Combretum acul
Kipchibinya	Dovyalis abys	Mutura	Solanum acul	Iddaado	Acacia sene
Kibini	Dovyalis abys	Muvanga	Millettia dura	Idi	Withania somn
Kiptakeriondu	Olea cape	Mvenyuke	Maytenus sene	K'adu	Cadaba mira
Korosiondet	Olea euro	Mwangua	Millettia tana	K'alkacca	Maerua ango
Loliondet	Olea cape	Mwimbe	Rauvolfia caff	K'arrari	Sterculia afri
Silip	Dombeya torr	Nakamwe	Landolphia buch	K'arraru	Acokanthera schi
Siriki	Faurea spp.			K'iltaa	Ficus glum
Situtua	Rapanea mela			K'obbo	Calotropis proc
Tenduet	Prunus afri			K'orrobo	Terminalia spin

ELGONY

Chepchoboiwet	Combretum apic
Kaptonengit	Olinia roch
Lumondet	Aningeria adol
Mfutumbwe	Vitex fisc
Musiambut	Entada abys

GABBRA

Most names have been taken from specimens collected by D. Stiles and A. Kassam, who have made a study of Gabbra names.

Aaddee	Salvadora pers	Matawi	Abutilon hirt
Addaama	Euphorbia cand	Meetti	Hyphaene comp
Agarsu	Commiphora holt	Mookofe	Croton dich
Arru	Juniperus proc	Nyaap'po	Croton mega
Baddano	Balanites aegy	Obbe	Adenium obes
Burkuke	Acacia nilo		Adenia vene

Ogomdi	Grewia vill	Mbulishi	Uvariiodendron kir	Mkulu	Diospyros corn
Qadhu	Capparis cart	Mbunduki	Bourreria peti	Mkulukulu	Dobera glab
Qatu	Cadaba mira	Mburuga	Caesalpinia bond	Mkunazi	Ziziphus maur
Rukeesa	Combretum moll	Mbwale	Cordia soma	Mkunguma	Lecaniodiscus frax
Saariima	Duosperma erem	Mbwanahaseni	Grewia vaug	Mkuro	Hugonia cast
Sa'pans gurraaca	Acacia mell	Mchacha	Alchornea frut	Mkuro	Toddaliopsis sans
Sarim	Leucas tome	Mchai	Memecylon sans	Mkwakua	Strychnos mada
Sigirso	Acacia refi	Mchera ngombe	Combretum here	Mkwakwa	Jasminum stre
Sukellaa	Delonix elat	Mchere	Asteranthe aste	Mkwama ngira	Phyllanthus welw
Waac'c'u	Acacia sene	Mcherere	Monodora gran	Mkwamba	Flueggia viro
Waaaa	Commiphora inci	Mchumbi	Haplocoelum inop	Mlakasoma	Vernonia hild
Waanga	Acacia nubi	Mdahabu	Ochna holt	Mlakasoma	Vernonia homi
Wakena	Erythrina mela	Mdahabu	Ochna moss	Mlala	Diospyros abys
Warab reeba	Commiphora elle	Mdahabu	Ochna thom	Mlala	Hyphaene comp
Worjidda	Abrus schi	Mdhahabu	Notobuxus obtu	Mlaza kome	Vernonia zanz
		Mdimu-tsaka	Suregada zanz	Mlimbo-limbo	Mystroxydon aeth
		Mdungu	Zanthoxylum chal	Mnavu	Chassalia umbr
		Mfaranje-ziwa	Feretia apod	Mngambo	Manilkara sans
		Mfududu	Vitex ferr	Mngambo-kapehe	Feretia apod
		Mfudzo	Pyrostria bibr	Mnuamaji	Ampelocissus afri
		Mfukofuko	Grewia plag	Mnwamaji	Trichilia emet
		Mfungu-tanzu	Haplocoelum inop	Mnyinywa	Pluchea dios
		Mfuranje	Canthium glau	Mnyukufu	Lamprothamnus zang
		Mfuranje	Keetia zanz	Moria	Sterculia afri
		Mgandama	Drypetes nata	Mpepo	Pavetta sten
		Mgirambari	Synaptolepis kirk	Mpesi	Trema orie
		Mgirimacha	Psydrax recu	Mpupu	Canavalia cath
		Mgore	Adenia gumm	Mranze	Dalbergia boeh
		Mguguna	Ziziphus mucr	Mrihi	Brachystegia spic
		Mguguna	Ziziphus pube	Mrori	Uvaria acum
		Mgunga	Acacia robu	Mruruku	Terminalia boiv
		Mguwe	Vismia orie	Msahe	Julbernardia magn
		Mhamna	Milletia usar	Msandarusi	Hymenaea verr
		Miama wanyika	Croton mega	Mshinda alume	Combretum illa
		Mjogoma	Rothmannia rava	Mshinda lume	Combretum buty
		Mjombo	Brachystegia spic	Mshosho	Heinsia crin
		Mjongomoto	Salvadora pers	Msigande	Opilia camp
		Mjoroge	Carpodiptera afri	Msokote	Grewia micr
		Mkalakala	Bridelia cath	Msunduri	Drypetes nata
		Mkaraza	Pandanus raba	Mtambo-mwitu	Ochna holt
		Mkasiri	Phyllanthus reti	Mtanda-mboo	Carissa tetr
		Mkata-mti	Ochna moss	Mtangai	Pleurostylia afri
		Mkete	Cordia subc	Mtangula-duza	Mallotus oppo
		Mkindhunga	Harrisonia abys	Mtela	Canavalia cath
		Mkipa	Euclea nata	Mtonda	Solanum inca
		Mkiririmbo	Grewia ecta	Mtongasi	Landolphia kirk
		Mkitaji	Ormocarpum kirk	Mtongasi	Tarenna nigr
		Mkitsano	Premna resi	Mtongazi	Ancylotrys petr
		Mkone	Grewia micr	Mtongazi	Ancylotrys tayl
		Mkone	Grewia plag	Mtsavia	Albizia adia
		Mkula-usiku	Clerodendrum hild		

GIRIAMA

Chungu	Acokanthera schi	Mfududu	Vitex ferr	Mngambo	Manilkara sans
Hawe narega	Memecylon frag	Mfudzo	Pyrostria bibr	Mngambo-kapehe	Feretia apod
Kacharare	Phyllanthus kaes	Mfukofuko	Grewia plag	Mnuamaji	Ampelocissus afri
Kadongara	Rytigynia parv	Mfungu-tanzu	Haplocoelum inop	Mnwamaji	Trichilia emet
Kakiya	Pavetta creb	Mfuranje	Canthium glau	Mnyinywa	Pluchea dios
Karusapungu	Clerodendrum inci	Mfuranje	Keetia zanz	Mnyukufu	Lamprothamnus zang
Kashomoro	Lantana vibu	Mgandama	Drypetes nata	Moria	Sterculia afri
Katondagogo	Solanum zanz	Mgirambari	Synaptolepis kirk	Mpepo	Pavetta sten
Katore	Phyllanthus muel	Mgirimacha	Psydrax recu	Mpesi	Trema orie
Kibuthi	Elaeodendron aqui	Mgore	Adenia gumm	Mpupu	Canavalia cath
Kikwakwa	Strychnos mada	Mguguna	Ziziphus mucr	Mranze	Dalbergia boeh
Kikweju	Dalbergia vacc	Mguguna	Ziziphus pube	Mrihi	Brachystegia spic
Kinuka-muhondo	Sesbania seri	Mgunga	Acacia robu	Mrori	Uvaria acum
Kinuka-muhondo	Sesbania sesb	Mguwe	Vismia orie	Mruruku	Terminalia boiv
Majaji	Strychnos spin	Mhamna	Milletia usar	Msahe	Julbernardia magn
Mangi	Pavetta parv	Miama wanyika	Croton mega	Msandarusi	Hymenaea verr
Masete	Notobuxus obtu	Mjogoma	Rothmannia rava	Mshinda alume	Combretum illa
Masuzi	Cassipourea eury	Mjombo	Brachystegia spic	Mshinda lume	Combretum buty
Mavi-ya-panya	Psydrax recu	Mjongomoto	Salvadora pers	Mshosho	Heinsia crin
Mavi-ya-papa	Rytigynia micr	Mjoroge	Carpodiptera afri	Msigande	Opilia camp
Mbafu-ngombe	Quisqualis litt	Mkalakala	Bridelia cath	Msokote	Grewia micr
Mbagazembe	Newtonia pauc	Mkaraza	Pandanus raba	Msunduri	Drypetes nata
Mbalasizaka	Gnidia lati	Mkasiri	Phyllanthus reti	Mtambo-mwitu	Ochna holt
Mbambakofi	Afzelia quan	Mkata-mti	Ochna moss	Mtanda-mboo	Carissa tetr
Mbambamage	Cladostemon kirk	Mkete	Cordia subc	Mtangai	Pleurostylia afri
Mbanj	Chassalia umbr	Mkindhunga	Harrisonia abys	Mtangula-duza	Mallotus oppo
Mbeyu	Strychnos pang	Mkipa	Euclea nata	Mtela	Canavalia cath
Mbirandu	Acacia abys	Mkiririmbo	Grewia ecta	Mtonda	Solanum inca
Mbirandu	Oldfieldia soma	Mkitaji	Ormocarpum kirk	Mtongasi	Landolphia kirk
Mbobokoma	Allophylus perv	Mkitsano	Premna resi	Mtongasi	Tarenna nigr
Mbogaboga	Chazaliella abru	Mkone	Grewia micr	Mtongazi	Ancylotrys petr
Mbogaboga	Psychotria ambo	Mkone	Grewia plag	Mtongazi	Ancylotrys tayl
Mboroko	Tricalysia oval	Mkula-usiku	Clerodendrum hild	Mtsavia	Albizia adia
Mbulishi	Monanthotaxis for				

Mtsomolo	Lamprothamnus zang	Mukololo	Margaritaria disc	Muyumbu-maji	Lannea schu
Mtsuchi	Cissus rotu	Mukomikila	Monanthotaxis faul	Muzunzwi	Keetia zanz
Mtswembe-wa-saka	Hunteria zeyl	Mukone-moruke	Grewia trun	Mvandi	Craibia brev
Mtswi	Avicennia mari	Mukuikwayu	Ozoroa obov	Mvuma	Premna chry
Mtuma-mcherere	Pseudobersama moss	Mukuro	Teclea tric	Mwalaga-kuku	Turraea robu
Mtuma-mrihi	Xylopia aren	Mukuru	Chazaliella abru	Mwanga	Terminalia prun
Mtumwa muhuhu	Psydrax schi	Mukushapungu	Gossypioides kirk	Mwanga	Terminalia spin
Mtundukula	Ximenia amer	Mukwanga-galana	Phyllanthus pinn	Mwanga-maima	Carpodiptera afri
Mturi-turi	Abrus pret	Mukwembe	Commiphora edul	Mwaowa-wakulima	Vepris euge
Mubale	Vernonia zanz	Mulamvi	Ochna holt	Mware	Bombax rhod
Mubati	Diospyros cons	Mulungu	Erythrina saci	Mwenekanda	Lonchocarpus buss
Mubati-murah	Pavetta creb	Mumahe	Pyrostria bibr	Myama	Croton pseu
Mubavungombe	Grewia forb	Mumanga	Pavetta mult	Mzambila	Pseudobersama moss
Muberia	Psydrax faul	Mumangwe	Pavetta parv	Mzezagunga	Capparis tome
Mubuluzi	Strophanthus cour	Mumanji	Pavetta parv	Mzungula	Pavetta sten
Muchedzi	Manilkara sulc	Mumasia	Rauvolfia momb	Mzunguzungu	Trema orie
Muchere	Azima tetr	Munahu-saka	Solanum goet	Ndimu mwitu	Balanites wils
Mucherere	Chazaliella abru	Mundahera-ngurwe	Asteranthe aste	Ndugatundu	Maytenus moss
Muchinjiri	Dichrostachys cine	Munga	Acacia nilo	Ndungu-tundu	Maytenus sene
Mudiro	Ficus ling	Mungara	Triainolepis afri	Njogoma	Oxyanthus zang
Mudodoma	Cynometra webb	Mungo	Landolphia kirk	Reza	Solanecio angu
Mudzala	Uvaria luci	Munyahi	Scutia myrt	Ria	Strychnos pang
Mudzedza-gunga	Capparis eryt	Munyala	Fernandoa magn	Ria	Pyrenacantha kaur
Mufodzohi	Garcinia livi	Munyanga-kitswa	Allophylus perv	Sokokoe	Notobuxus obtu
Mufudumaji	Vitex ferr	Mupungwa	Dalbergia vacc	Tiha	Synadenium pere
Mufudzo	Canthium momb	Mupweki	Diospyros squa	Vamba manga	Ocimum suav
Mufudzo	Pyrostria bibr	Muratina	Kigelia afri		
Mugandana murori	Grewia glan	Murendazia	Mimosa pigr		
Mugandi	Ficus buss	Muriakitu	Maytenus unda		
Mugereaka	Flacourtia indi	Murori	Grewia stuh		
Mugonyi	Ellipanthus hema	Murusa-ngungu	Combretum pent		
Mugore	Adenia gumm	Murusupungu	Premna hild		
Mugulare	Excoecaria mada	Musambeke	Boscia angu		
Muguro	Acridocarpus zanz	Musangasanga	Ficus sans		
Mugurure	Combretum schu	Mushandahele-ngurwe	Gardenia tran		
Mugwale	Grewia trun	Mushandaluhera-ngulwe	Metaporana dens		
Mugwanda-paka	Capparis sepi	Mushindano	Maerua trip		
Muhabasi	Canavalia cath	Mushungwi	Dialium orie		
Muhamdala	Markhamia zanz	Mutakuma	Annona sene	Afuguba	Opilia camp
Muhoro-ngondo	Barringtonia race	Mutamakwalala	Pteleopsis tetr	Alakal	Maerua macrantha
Muhumba	Cassia abbr	Mutomoko	Gardenia tran	Alwota	Parquetina nigr
Muhumbu	Senna sing	Mutongtongo	Commiphora habe	Alwota-mote	Strophanthus mira
Mukametsaka	Grewia vaug	Mutongtongo	Commiphora lind	Baagasa	Maytenus sene
Mukichano	Vitex stri	Mutsatsa	Ludia maur	Bisiqa	Terminalia orbi
Mukingwenwe	Gardenia volk	Mutserere	Hoslundia oppo	Choneh	Commiphora rost
Mukipo	Salacia eleg	Mutula	Commiphora edul	Chonya-baafugha	Commiphora sp.
Mukipo	Salacia mada	Muvirira	Schlechterina mito		Q
Mukiriango	Schlechterina mito	Muwari	Ellipanthus hema	Chyachyane	Acacia paol
Mukironda	Ehretia bake	Muyama	Croton pseu	Dadacha	Acacia tort

ILWANA/MALAKOTE

These names have been taken from "A checklist of indigenous trees and shrubs of Bura, Tana River District, Kenya with Malakote, Orma and Somali names" by Gachathi, Alakoski-Johansson & Johansson (1987). All these names have been double-checked by clan elders. I am grateful to Mr. Norman Gachathi for permission to use his data.

Afuguba	Opilia camp
Alakal	Maerua macrantha
Alwota	Parquetina nigr
Alwota-mote	Strophanthus mira
Baagasa	Maytenus sene
Bisiqa	Terminalia orbi
Choneh	Commiphora rost
Chonya-baafugha	Commiphora sp.
	Q
Chyachyane	Acacia paol
Dadacha	Acacia tort

Dadwota	Acacia tort	Mokowlo	Diospyros mesp	Muwwarale	Newtonia hild
Dana	Euphorbia goss	Mokoyo	Ficus syco	Mwacha	Spirostachys vene
	Euphorbia tiru	Monofwa-kuku	Rinorea elli	Mwadama	Drypetes nata
Dawa maaze	Maerua decu	Morhoqa	Tamarindus indi	Mwana-moka	Pavetta spha
Dawa nyoka	Maerua decu	Mosholole	Uvaria lept	Mwangata	Terminalia prun
Dawa ushingo	Erythrococca kirk	Mosrya	Lawsonia iner	Mwebebe	Sorindeia mada
Dawa-buna	Jatropha fiss	Motemwelo	Albizia gumm	Mweze-banya	Allophylus rubi
Deka	Grewia tena	Motobwi	Lecaniodiscus	Mwitwa-mow	Salacia mada
Durte	Salsola dend		frax	Namwaliko	Capparis tome
Durtya jovu	Tamarix nilo	Motya-bhubha	Calotropis proc	Nanaidho	Abrus prec
Durtya wacholoh	Tamarix nilo	Motya-bo	Phyllanthus oval	Nyala-za-siba	Erythrina mela
Fahfah	Grewia dens	Motya-iziba	Deinbollia borb	Nyamili	Cocculus hirs
	Grewia plag	Motya-mowgi	Diospyros abys	Oghondi	Grewia vill
Fahfah-gema	Grewia stuh	Motya-mwoqa	Erythroxylum	Orbisa	Vernonia hild
Gedo	Phoenix recl		emar	Qararhi	Sterculia afri
Gherebhe	Combretum cons	Motya-rugha	Calotropis proc	Qorhobo	Terminalia parv
Gora	Harrisonia abys	Motya-tudu	Premna velu	Quqube	Maerua denh
Gora-nyilo	Capparis tome	Mow	Hippocratea afri	Quqube	Thylachium thom
Gora za jovu	Capparis tome	Mrugha	Calotropis proc	Rhemanguzi	Capparis sepi
Hagharsu	Commiphora pseu	Mubadana	Balanites pedi	Rhigha	Acacia refi
Hathama	Euphorbia robe	Mubadana	Balanites rotu	Safara	Moringa borz
Huda-hudo	Ximenia amer	Mubuna	Polysphaeria mult	Sampasa	Acacia mell
Kadoe	Combretum pani	Mubururi	Meyna tetr	Sufi-bara	Lannea alat
Kaka-mchangani	Carissa edul	Muchaagu	Oncoba spin	Sukele	Delonix elat
Kalaqacha	Boscia cori	Muchuchata	Cordia goetzei	Tulata	Adenium obes
Kalaqacha	Cadaba fari	Mudaanisa	Thespesia dani	Waigho	Azima tetr
Kalaqacha	Maerua trip	Mudeeno	Hunteria zeyl	Wakama	Alafia caud
Karhabela	Clerodendrum	Mudhurajho	Rinorea elli	Warharhebbho	Commiphora inci
	acer	Mufaate	Trichilia emet	Wogho	Hildebrandtia sepa
Kivuja-mudi	Acalypha sp.	Mufuno	Sterculia appe		
Kormoto	Phyllanthus soma	Muhidi	Solanum inca		
Kosaiye	Cephalocroton	Mujajabho	Berchemia disc		
	cord	Mulalati	Populus ilic		
Kosaiye	Givotia gosa	Muluqisa	Euclea nata		
Loguo	Saba como	Mumbalambale	Ficus buss		
Lojo	Ficus capr	Munugau	Mimusops obtu		
Lupiki	Rauvolfia momb	Munyonyo	Pluchea dios		
Madera	Cordia quer	Mupakata	Cynometra luke		
Mchaanda	Markhamia zanz	Muqanto	Lepisanthes sene		
Mchichozi	Garcinia livi	Murifate	Borassus aeth		
Mezi	young Hyphaene	Musadyeqa	Caesalpinia bond		
	comp	Musigisigi	Antidesma veno		
Minyonyo	Pluchea dios	Musigisigiya-jovu	Tapura fisc		
Mobonu	Ricinus comm	Musuaki	Salvadora pers		
Mobwoka	Kigelia afri	Musukari	Strychnos decu	Dorewa	Obetia pinn
Mochobwe	Sesbania quad	Mutaale	Cordia quer	Eneneou	Bourreria teit
Mogogo	Acacia rovu	Mutalya-naja	Cordia quer	Esemolea	Cotyledon barb
Mokalakala	Carissa edul	Mutlya-chana	Cordia quer	Eteta	Chionanthus batt
Mokalakala	Maytenus hete	Muuga	Acacia elat	Ethinia	Trichocladus elli
Mokokola	Terminalia brev	Muuga-fuwe	Acacia robu	Ewalia	Clematis brac
Mokoma	Hyphaene comp	Muwachyu	Acacia zanz	Ewewe	Lobelia gibb
Mokopa	Dobera glab	Muwarade	Manilkara moch	Ezewe	Leonotis moll

KAMBA

NOTE: In the Kamba language, names starting with KI - and with MU- are interchangeable. In the following list only MU- names have been included; if your name starts with KI- or KY-, look up the corresponding MU- name. The original list was checked by Mr. Onesmus Mwangangi of the University of Nairobi, and I express my thanks. Also many thanks to Mr. Patrick Munyao Maundu of the East African Herbarium, who checked my lists most carefully.

Dorewa	Obetia pinn
Eneneou	Bourreria teit
Esemolea	Cotyledon barb
Eteta	Chionanthus batt
Ethinia	Trichocladus elli
Ewalia	Clematis brac
Ewewe	Lobelia gibb
Ezewe	Leonotis moll

Gime	Strychnos spin	Mongame	Allophylus abys	Mukengeka	Senna sing
Gitarongui	Strychnos usam	Mongoli	Acacia sene	Mukengeta	Senna bica
Guguma	Uvaria sche	Mooa	Solanecio mann	Muketa-munini	Myrsine afri
Ikulutui	Ensete vent	Mothee	Bidens hild	Muketu	Garcinia volk
Ilangala	Solanecio mann	Mpunda	Moringa borz	Mukinyei	Euclea schi
Ilimindi	Givotia gosai	Mriti	Paederia pōsp	Mukiswa	Triumfetta tome
Ilumbu	Calotropis proc	Mtba	Erythrochlamys spec	Mukokola	Combretum exal
Imukondu	Ipomoea kitu			Mukolekya	Maerua angō
Isavi	Albizia glab	Muaa	Manilkara moch	Mukolekya	Zanha afri
Isivu	Boscia cori	Muae	Zizyphus abys	Mukolokolo	Piliostigma thon
Itaa mboo	Capparis sepi	Mualundathi	Albizia anth	Mukololo	Diospyros abys
Ithande	Lepidagathis scar	Muama	Combretum mioll	Mukoloso	Anacardium occi
Ithithi	Securidaca long	Muamba	Adansonia digi	Mukoma	Hyphaene comp
Ithithii	Combretum apic	Muandi	Bridelia cath	Mukomoa	Rytigynia uhli
Ithunzu yika	Tinospora caff	Muandi	Bridelia tait	Mukomoa	Vangueria apic
Itulu	Cissus rotu	Muandia	Bauhinia tome	Mukomoa	Vangueria infa
Iviinzi	Crotalaria agat	Muandui	Xerophyta spek	Mukomoa	Vangueria mada
Kaawa	Coffea arab	Muangi	Arundinaria alpi	Mukomoa	Vangueria volk
Kalamba	Jatropha spic	Muatha	Synadenium comp	Mukomole	Tapiphyllum schu
Kalamba	Sesamothamnus buss	Muatha	Synadenium pere	Mukondakondi	Solanum tait
Kali	Adenia wigh	Muathani	Flacourtia indi	Mukondu	Jasminum stre
Kaluma	Pittosporum viri	Muatine	Kigelia afri	Mukondu	Solanum inca
Kalumbu	Adenia lanc	Mubrubru	Kigelia moos	Mukondu	Solanum indi
Karue	Maerua cras	Muchobe	Opilia camp	Mukonga	Solanum maue
Kithithi	Dolichos oliv	Muchumbwa	Mundulea seri	Mukongau	Diospyros usam
Kithui	Euphorbia buss	Mududi	Dalbergia lact	Mukongo	Mystroxydon aeth
Kugiei	Chasmanthera depe	Mugadi	Duosperma kili	Mukongui	Diospyros corn
Kyaa	Euphorbia cand	Muguguma	Ozoroa insi	Mukou	Ekebergia cape
Lisenia	Ficus exas	Muindanguuwe	Uvaria sche	Mukua	Melia volk
Makindu	Phoenix recl	Mujuga	Triumfetta tome	Mukukuma	Alchornea frut
Makini	Populus ilic	Mukaakaa	Ruttya frut	Mukukwi	Tarenna grav
Makulo	Annona sene	Mukaakaaa	Premna resi	Mukuluu	Canthium dysc
Malandasi	Cassia abbr		Erythrochlamys spec	Mukulwa	Flueggia viro
Malendi	Cussonia arbo	Mukaati	Faures spp.	Mukume	Alchornea race
Malika	Tinnea aeth	Mukaksu	Jasminum abys	Mukumuti	Haplocoelium foli
Malula	Croton sche	Mukala	Antidesma veno	Mukunguti	Gardenia tern
Manzele	Thunbergia hols	Mukala	Carphalea glau	Mukunguu	Rawsonia luci
Mavemde	Thunbergia hols	Mukalaliki	Nuxia cong	Mukuswi	Erythrina burt
Mbemba	Cussonia arbo	Mukalati	Macaranga kili	Mukutu	Acacia brev
Mbemba	Pavetta abys	Mukame	Bucea anti	Mukuu	Microglossa pyri
Mboosi	Pavetta subc	Mukami	Newtonia hild	Mukuyu	Juniperus proc
Methia	Erythrina burt	Mukanana	Albizia harv	Mukuyu	Ficus syco
Minyua	Albizia gumm	Mukandu	Ocimum suav	Mukweu	Ficus wake
Mkambia	Acacia seya	Mukanga	Garcinia livi	Mulaa	Acokanthera oppo
Mobong	Psychotria ripa	Mukau	Melia volk	Mulaa	Acacia etba
Moiya	Pycnostachys umbe	Mukawa	Carissaedul	Mulaka	Acacia tort
Molali	Plectranthus barb	Mukawa	Carissaedul	Mulaliondo	Spirostachys vene
Molialundi	Secamone punc	Mukayau	Salvadora pers	Mulamandia	Garcinia volk
Monde	Olea euro	Mukea	Anisotes ukam	Mulasi	Breonadia micr
	Macrorungia pubi	Mukeneea	Zanthoxylum chal		Zanthoxylum usam
		Mukengeka	Senna bica	Mulati	Ochna iner

Mulavutwa	Maerua kirk	Musengele	Calypotrothea tait	Muthingii	Ormocarpum kirk
Mulawa	Grewia bico, vill	Musenja	Croton alie	Muthingwa	Clausena anis
Mulawa	Triumfetta rhom	Musewa	Acacia seya	Muthinia	Croton dich
Mulema	Bauhinia tome	Musewa	Acacia seya	Muthio	Dobera glab
Mulembwa	Euphorbia cuss	Musewa	Acacia xant	Muthio	Lantana rhod
Mulembwa	Euphorbia sche	Musewa	Acacia zanz	Muthirithi	Lippia kitu
Mulemwa	Euphorbia cune	Musewa	Acacia zanz	Muthithi	Combretum coll
Mulinditi	Hymenodyction parv	Musingili	Senna bica	Muthithi	Comretum zeyh
Mulingula	Maerua trip	Musinziili	Gnidia subc	Muthithu	Garcinia volk
Muluia	Toddalia asia	Musu-ndui	Rauvolfia mann	Muthongoi	Dodonaea angu
Mulule	Boscia angu	Musuanandui	Garcinia volk	Muthongori	Cassipourea cela
Mulului	Balanites aegy	Musuusu	Crotalaria lach	Muthulu	Croton mega
Mulului	Balanites glab	Muswiswii	Acacia etba	Muthumula	Tamarindus indi
Mulului	Catunaregam nilo	Mutai	Psyrax livi	Muthundi	Berberis hols
Muluma	Aloe kedo	Mutalenda	Grewia forb	Muthunthi	Maytenus obsc
Mulundu	Elaeodendron buch	Mutalenda	Grewia stuh	Muthunthi	Maytenus putt
		Mutalombe	Deinbollia kili	Muthunthi	Rhamnus stad
Mumbu	Ficus vast	Mutandambo	Caesalpinia daue	Mutianzuni	Strombosia sche
Mumuu	Vitex payo	Mutandambo	Capparis tome	Mutiiti	Meyna tetr
Mumwea	Acacia kirk	Mutandi	Ochna hols	Mutimailu	Prunus afri
Mumwea	Acacia xant	Mutandi	Ochna iner	Mutisi	Craibia brow
Munasi	Lannea schu	Mutandi	Ochna insc	Mutithi	Combretum acul
Munatha	Maerua decu	Mutandi	Ochna ovat	Mutithi	Combretum apic
Mundumbilu	Oxyanthus spec	Mutangwai	Combretum moss	Mutithi	Comretum zeyh
Mungai	Populus ilic	Mutati	Thunbergia hols	Mutolongwe	Strychnos decu
Munguladugi	Manilkara disc	Mutavisi	Lantana cama	Mutongatongu	Solanum rens
Munguuthe	Lonchocarpus erio	Muteangwai	Clerodendrum john	Mutoo	Azanza garc
Munguya	Clerodendrum myri	Mutebi	Ochna insc	Mutoo	Dombeya burg
		Mutemavengi	Clutia abys	Mutoo	Dombeya rotu
Munondo	Boswellia negl	Mutendeluka	Rothmannia fisc	Mutoo	Terminalia prun
Munu	Heteromorpha trif	Muteta	Strychnos henn	Mutula	Commiphora balu
Munyenyo	Pavetta cras	Muthaa	Senna didy	Mutula	Commiphora emin
Munyongo	Sesbania sesb	Muthaalwa	Lannea riva	Mutula	Terminalia spin
Munyonywe	Rumex usam	Muthaalwa	Lannea trip	Mutula	Ximenia amer
Munyunganai	Senna didy	Muthatha	Argomuelleria	Mutula-ivindi	Ximenia amer
Munyunganai	Senna sing		macr	Mutuluku	Carphalea glau
Munzuki	Oxyanthus spec	Muthawa	Osyris lanc	Mutumbuu	Trichilia emet
Muongwa	Combretum pani	Muthea	Cordia sine	Mutumbuu	Scutia myrt
Muonu	Psyrax livi	Muthee	Cordia sine	Mutundu	Scutia myrt
Muonywe	Ficus glum	Muthei	Cordia mono	Mutundu	Croton macr
Muonywe	Ficus inge	Muthekajuu	Albizia tang	Mutunene	Croton sylv
Muoo	Markhamia lute	Muthelia	Crotalaria good	Mutungati	Turraea robu
Musaa	Pistacia aeth	Muthethu	Tarenna grav		Commiphora habe/lind
Musai	Barleria tait	Mutheu	Rhus spp.	Mutungu	Commiphora afri
Musaia	Diospyros scab	Muthi	Acacia gerr	Mutungu	Commiphora emin
Musakele	Calypotrothea tait	Muthi	Acacia nilo	Mutungu	Commiphora habe/lind
Musambi	Hoslundia oppo	Muthi	Acacia robu		Commiphora schi
Musambo	Trichilia emet	Muthi	Craibia brow	Mutungu	Thylachium thom
Musebe	Leucas gran	Muthiethi	Lippia kitu	Mutungulu	Thylachium afri
Musemba-sya-kamwe	Pavetta teit	Muthiia	Acacia mell	Mutunguu	Thunbergia hols
Musemei	Acacia sene	Muthiithu	Psyrax schi	Mututi	

Mutuva	Grewia ecta	Mvingo	Dalbergia mela	Ihindu	Ensete vent
Mutuva	Grewia simi	Mvuli	Milicia exce	Kahua	Coffea arab
Mutuva	Grewia temb	Mwai	Platycelyphium	Kamiti	Filicium deci
Mutwa	Millettia leuc		voen	Kamukururi	Berberis hols
Muu	Nuxia cong	Mwaitha	Entada lept	Kaniathenge	Hypericum roep
Muua	Sclerocarya birr	Mwalika	Vitex stri	Kari	Agelaea hete
Muuanzuki	Combretum apic	Mwamba	Bequaertiöden-		Jaundea pinn
Muuasi	Ekebergia cape		dron nata	Kiage	Oncoba spin
Muumbwa	Clerodendrum	Mwangi	Delonix elat	Kiha	Combretum pani
	erio	Mwathambiti	Pentas parv	Kikwa	Smilax ance
Muumo	Ficus inge	Mwega	Neoboutonia macr	Kinoa	Pachystela brev
Muumo	Ficus nata	Mweia	Vernonia wake	Kireru	Croton dich
Muumo	Ficus thon	Mwelanganga	Phyllanthus sepi	Kiruru	Ixora sche
Muundua	Albizia amar	Mwelengwa	Cissus aphy	Kitamani	Acanthus emin
Muunga	Acacia drep	Mwelina	Mimusops kumm	Kithuri	Euphorbia cand
Muunga	Acacia hock	Mwendango	Triumfetta flav	Kithuthia	Tephrosia inte
Muungu	Ipomoea spat	Mwenu	Senna long	Kiururu	Acokanthera oppo
Muungu	Triumfetta rhom	Mwethi	Lannea schw	Lusiliru	Oxyanthus spec
Muusya	Sterculia afri	Mwinthongoi	Pavetta gard	Maago	Jasminum abys
Muusya	Sterculia afri	Mwitalenda	Grewia glan	Magmdi	Ensete vent
Muusya	Sterculia sten	Mwowa	Albizia anth	Mailungi	Catha edul
Muuuku	Terminalia brow	Ndalakwa	Juniperus proc	Matindia	Embelia schi
Muuuku	Terminalia kili	Ndambili	Schefflera volk	Mauri	Mussaenda micr
Muva	Pappea cape	Ndau	Euphorbia tiru	Mbirubiru	Canthium olig
Muva-wa-ngo	Acokanthera oppo	Ndungu	Lannea alat		Rytigynia uhli
Muvai	Acokanthera schi	Ngolia	Lannea alat	Mchugachuga	Lepidotrichilia
Muvatha	Vernonia lasi	Ngoloso	Anacardium occi		volk
Muvau	Dombea burg	Ngongwa	Commiphora mild	Mho	Markhamia lute
Muvau	Dombea kirk	Ngungu	Rhoicissus trid	Miugu	Agelaea hete
Muvemba	Garcinia volk	Nzinzinda	Tamarix nilo	Mkambokombo	Psychotria orop
Muvembe	Pavetta cras	Nzyavisi	Rhamnus prin	Mkomokomo	Psychotria maho
Muvengea	Podocarpus falc	Tamalisi	Tamarix nilo	Mokeo	Abutilon maur
Muvila	Gnidia lati	Thivea	Tetradenia ripa	Morogorogo	Cussonia hols
Muvilisya	Dichrostachys cin	Ulindindi	Hymenodyction	Mosibit	Leonotis moll
Muvisavisi	Lantana trif		parv	Mroro	Flacourtia indi
Muvosya	Rhoicissus trid	Ulumandu	Blepharispermum	Mubagi	Caesalpinia deca
Muvou	Plectranthus barb		zang	Mubatia	Millettia dura
Muvovoa	Acacia poly	Üthui	Jasminum flum	Mubiru	Vangueria mada
Muvovotwe	Maerua kirk	Uvala	Tamarix nilo	Mubiru-ngombe	Vangueria volk
Muvu	Zanthoxylum	Uvatha mutheke	Microglossa pyri	Mububungu	Euphorbia cand
	usam	Wenye	Ocimum kili	Mubura	Rhamnus stad
Muvuavui	Steganotaenia aral	Yangu	Calodendrum cape	Muburu	Maytenus arbu
Muvueni	Syzygium cord	Zewe	Xymalos mono	Mubuthi	Caesalpinia volk
Muvukelele	Senna pete			Mucaraga	Calodendrum cape
Muvunda-ngiti	Maytenus sene			Mucatha	Vernonia lasi
Muvunu	Ricinus comm	With many thanks to Mr. Simon		Mucemeki	Afrocrania volk
Muvuthu	Calotropis proc	Mathenge of the University of Nairobi.		Muchagatha	Zanthoxylum gill
Muvuti	Erythrina abys			Muchaiki	Argyrolobium frie
Muvutu	Cordia afri	Ariithi	Embelia schi	Muchami	Allophylus abys
Muvuvu	Brachylaena huil	Gachoka	Cissus oliv		Lepidotrichilia
Muvweia	Clerodendrum	Gandole	Garcinia livi		volk
	myri	Githuri	Euphorbia cuss	Muchangire	Crotalaria axil

KIKUYU

Muchango-murio	Deinbollia kili	Muha	Halleria luci	Mukinyei	Euclea divi
Muchatha	Vernonia auri	Muharangare	Erythrococca	Mukiti	Tephrosia inte
Mucherere	Pistacia aeth		bong	Mukohokoho	Xymalos mono
Muchi	Pycnostachys meye	Muhathi	Sapium elli	Mukoigo	Bridelia micr
Muchichio	Premna maxi	Muhathu	Stoebe kili	Mukomakoma	Galiniera coff
Muchingiri	Premna maxi	Muhatia	Millettia dura		Psychotria frac
	Calpurnia aure	Muhato	Artemisia afra	Mukombokombo	Rothmannia urce
	Crotalaria agat	Muhehe	Lobelia gibb	Mukondwe	Coffea euge
	Crotalaria good	Muhehete	Pistacia aeth		Leptonychia usam
	Crotalaria lach	Muhembeta	Mimulopsis arbo	Mukongogo	Commiphora emin
	Crotalaria tabu	Muhethu	Trema orie	Mukongoro	Lovoa swyn
	Gnidia glau	Muhindihindi	Trimeria gran	Mukongugu	Commiphora emin
	Gnidia subc	Muho	Markhamia lute	Mukorombothi	Afrocrania volk
Muchoki	Apodytes dimi	Muhoko	Phytolacca dode	Mukudwa	Helinus myst
Muchorowe	Buddleia poly	Muhoro	Pycnostachys umbr	Mukuhakua	Macaranga cape
	Nuxia cong				Macaranga kili
Muchosi	Agelaea hete	Muhugu	Brachylaena huil	Mukui	Ehretia cymo
Muchugugu	Indigofera arre	Muhurangware	Pavetta abys		Newtonia buch
Muchuguthii	Breonadia micr		Scutia myrt		Syzygium cord
Mucii	Leonotis nepe	Muhuru	Vitex doni		Syzygium guin
	Leucas gran	Muhuti	Erythrina abys	Mukumba	Craibia brow
Muenyuke	Maytenus sene	Muigaigua	Oncoba spin	Mukundu	Meyna tetr
Muera-kimbu	Canthium olig	Muigoya	Plectranthus barb	Mukunguru	Cassipourea gum
Muerere	Tabernaemontana vent	Muikoni	Ocotea keni	Mukunguu	Erythrina mela
		Muikuni	Blighia unij	Mukuo	Cordia oval
Mugaa	Acacia abys	Muimbaguru	Periploca line	Mukuri	Ocimum lami
	Acacia hock	Muiro	Psychotria maho	Mukuriahungu	Brucea anti
	Acacia laha	Muiru	Prunus afri	Mukurue	Albizia gumm
Mugagatio	Rumex usam	Muirungi	Casaeria batt		Albizia schi
Mugaingundu	Clematis brac		Catha edul	Mukuyu	Ficus sur
Mugaita	Myrsine afri		Dovyalis abys		Ficus syco
	Rapanea mela	Muiruthi	Diospyros abys	Mukwethi	Lasianthus kili
Mugaithu	Alangium chin	Mujuga	Ruttya frut		Pauridiantha pauc
Mugambera	Manilkara disc	Mukakinga	Vitex stri	Mulangari	Scutia myrt
Mugambwa	Mimusops kumm	Mukaragati	Fagaropsis ango	Mulema	Bauhinia tome
Mugandu	Tinnaea aeth	Mukarakinga	Rhamnus prin	Mumondo	Hagenia abys
Mugaruka	Securidaca long	Mukarara	Margaritaria disc	Muna	Aningeria adol
Mugimbe	Allophylus ferr		Ochna ovat	Munangamai	Ritchiea albe
Mugio	Ocimum suav		Phyllanthus oval	Munathu	Peddiea volk
	Triumfetta tome	Mukau	Melia volk	Mundare	Lepidotrichilia volk
Mugokoma	Keetia guei	Mukawa	Carissa edul		
Mugonyoni	Apodytes dimi		Mystroxyton aeth	Mundaria	Discopodium penn
Mugoro	Halleria luci	Mukekenye	Berberis hols		
Muguchwe	Acacia brev	Mukenia	Lantana spp.	Munderendu	Teclea nobi
Mugucua	Zanthoxylum usa	Mukeu	Dombeya burg		Teclea simp
Mugugu	Brachylaena huil		Dombeya kirk		Teclea tric
Mugumo	Ficus nata		Dombeya torr	Munderendu-itu	Vepris glan
	Ficus thon	Muki	Achyrosperrum carv	Mundonge	Maesa lanc
Mugunachano	Mimusops kumm			Mundume	Maesa lanc
Mugunga	Acacia abys	Mukindu	Phoenix recl	Mungirima	Ochna hols
Mugunguma	Keetia guei	Mukinduri	Croton dich		Ochna insc
Mugyumundu	Clematis brac		Croton mega		Ochna ovat

Muninerya	Rauvolfia mann	Muruya	Piper cape	Muthia	Schefflera volk
Munjugairia	Pavetta elli	Musaa	Celtis gomp	Muthigethu	Agauria sali
Munjugu	Clerodendrum myri	Musaki	Schefflera myri	Muthigi	Cordia oval
Munoa	Pachystela brev	Musakwa	Vernonia auri	Muthigio	Allophylus kili
Munugunugu	Chrysophylum viri	Musariki	Solanecio mann	Muthigio	Rhus spp.
Mununga	Ekebergia cape	Musharage	Chionanthus batt	Muthigitha	Galiniera coff
Munyamati	Ilex miti	Mushugushugu	Dyschoriste thun		Lepidotrichilia volk
	Pittosporum viri	Musili	Ocotea usam	Muthigitu	Tarennia grav
Munyawa	Garcinia volk	Musumara	Pittosporum lana	Muthikitha	Agauria sali
Munyenye	Drypetes gerr	Musumura	Ilex miti	Muthimamburi	Clutia abys
	Strombosia sche	Musungiri	Sesbania sesb	Muthimbari	Buddleia poly
	Suregada proc	Mutahachu	Flacourtia indi	Muthingira	Acacia mell
Munyururu	Heteromorpha trif	Mutaigoka	Heywoodia luce	Muthioya	Solanum schu
Murangi	Arundinaria alpi	Mutaigoko	Strombosia sche	Muthiringu	Strombosia sche
Murarachi	Calodendrum cape	Mutanda	Maytenus obse	Muthithi	Osyris lanc
Muratina	Kigelia afri	Mutandabongo	Scutia myrt	Muthithinda	Erica arbo
	Kigelia moos	Mutanga	Elaeodendron buch		Erica exce
Murema	Combretum moll	Mutarakwa	Juniperus proc		Erica trim
Muremamuthua	Dodonaea visc	Mutare	Rubus spp.	Muthogoya	Stoebe kili
	Tarennia pave	Mutasia	Artemisia afra	Muthoroti	Myrica sali
Muremanuthua	Mussaenda micr	Mutati	Polyscias kiku	Muthugi	Lippia java
Murembu	Ehretia cymo	Mutei	Microglossa pyri	Muthugia	Solanum rens
Murendeti	Xymalos mono		Vernonia brac	Muthura	Barleria vent
Murera-kimbu	Canthium olig	Mutendera	Rawsonia luci	Muthuri	Ocotea keni
Murichu	Acokanthera schi	Mutero	Olea euro		Pycnostachys meye
Murima muthua	Myrica sali	Muteta	Strychnos henn	Muthuthi	Maytenus hete
Muringa	Cordia afri	Muthaithi	Cassipourea malo		Maytenus obse
	Turraea robu		Cassipourea rotu		Maytenus unda
Muringo	Clerodendrum john	Muthaithua	Ocotea usam		Rhamnus stad
	Triumfetta rhom	Muthakai	Harungana mada	Muti-muiru	Turraea hols
Muringurue	Syzygium cord	Muthakwa	Cola gree	Mutichuma	Ixora sche
Muriru	Scolopia thei	Muthakwa waati	Vernonia auri	Mutikani	Strychnos miti
Muroro	Pavonia uren	Muthamay	Solanecio mann		Strychnos usam
Muruamba	Alchornea hirt	Muthandi	Olea euro	Mutikati	Trichocladus elli
Muruanwe	Sparrmannia rici		Bersama abys	Mutimuiru	Galiniera coff
Murugangwe	Bersama abys	Mutharage	Casaeria glad	Mutiti	Cassipourea rotu
Murumandu		Muthari	Olea cape	Mutoigu	Jaundea pinn
			Dracaena afro	Mutoma	Schrebera alat
Murumbae	Withania somn	Muthathi	Dracaena steu	Mutonda mbogo	Capparis vimi
Murumia-andu	Bersama abys		Clauseria anis	Mutonga	Uvariendendron anis
Murundi	Lasianthus kili	Muthaga	Sapium elli		
Murundo	Turraea abys	Muthengera	Warburgia ugan	Mutongo	Rauvolfia caff
Murundu	Celtis afri		Podocarpus falc	Mutongoga	Commiphora emin
	Chrysophylum viri	Muthengetha	Podocarpus lati	Mutongu	Solanum inca
	Turraea hols	Muthenia	Agauria sali		Solanum indi
Mururi	Trichilia emet		Croton alie		Solanum schu
Mururicua	Tarchinanthus camp	Mutheregendu	Chrysophyllum goru	Mutorothua	Faurea spp.
	Toddalia asia	Mutherigende	Grewia simi	Mutumbi	Suregada proc
			Dombeya kirk	Mutumutua	Rhoicissus trid
Mururuwe			Dombeya rotu	Mutundu	Croton macr

	Croton sylv	Rusirusiru	Cyathea mann	Chepindorwet	Toddalia asia
	Neoboutonia macr	Ruti	Buddleia poly	Chepitet	Acacia gerr
Mutunguru	Anthocleista gran	Ruyuyu	Psoralea foli		Acacia laha
	Meyna tetr	Sasimua	Hypericum roep		Acacia nilo
Mutura	Solanum acul	Suguya	Piper cape	Chepkatet	Aningeria adol
	Ximenia amer	Susimua	Hypericum revo		Chaetacme aris
Muturangu	Vernonia hoch	Tarakwa	Juniperus proc	Chepkerombetiet	Pauridiantha pauc
Mutuyu	Myrianthus hols	Thendu	Ensete vent	Chepkonget	Euphorbia engl
Mutwari-wangoma	Smilax ance	Uruti	Vernonia urti	Chepkorokwet	Pistacia aeth
Muu	Markhamia lute	Waotho	Euphorbia engl	Chepkorwet	Tarenna grav
Muugu	Landolphia buch	Watha	Synadenium comp	Chepkowet	Trimeria gran
Muwenyere	Schefflera abys			Chepkumiat	Psiadia punc
Muyuyu	Chaetacme aris			Chepkurbet	Lobelia gibb
Mwagao	Cola gree				Solanecio mann
	Chrysophyllum goru	KIPSIGIS			
		With many thanks for checking to Mr.			
		T. Tepeny of the University of Nairobi.			
Mwago	Jasminum abys	Abasbasiet	Mikaniopsis usam	Chepkuresiet	Cissus quad
Mwanda	Nuxia cong	Aburuet	Ficus sans	Chepkurisiet	Cissus rotu
Mwangua	Millettia tana	Aounet	Polyscias kiku	Chepkutik	Plectranthus lute
Mwaniathenge	Euphorbia frie	Aradwi	Ekebergia cape	Cheplekwelet	Keetia guei
Mwariki	Ricinus comm	Araruet	Ekebergia cape	Chepleleliet	Celtis afri
Mwaritha	Dalbergia lact	Batkanet	Phytolacca dode	Cheplelmeiet	Pluchea oval
Mwatathia	Olinia roch	Bek ap torit	Lantana rhod	Chepokalial	Rawsonia luci
Mwathathi	Solanecio mann		Lantana trif	Chepokalyal	Deinbollia kili
Mwathathia	Pavetta abys	Belbeliet	Pavetta abys	Chepokiot	Jasminum flor
Mwelele	Tabernaemontana		Pavetta temb	Chepokiyot	Galiniera coff
	stap	Biriruop chereret	Cyathea mann	Cheprorkoriet	Pseudarthria hook
Mwendanguiko	Psiadia punc	Biriwarokiet	Hypericum revo	Cheptabirbiriet	Dovyalis macr
Mwenu	Senna didy	Bisingwet	Clematis sime	Cheptekeriat	Withania somn
Mwenyere	Schefflera abys	Bondet	Hagenia abys	Cheptorogoruet	Bersama abys
Mwenyiere	Cussonia spic	Borowet	Helinus myst	Cheptuiyet	Diospyros abys
Mwerere	Rauvolfia caff	Borowet abiteta	Maerua trip	Cherungut	Achyrosperrum schi
	Tabernaemontana	Borwet ap chepkeleliet	Allophylus		Hoslundia oppo
	stap		ferr	Cherungut ap mongokekek	Oci-mum lati
Mwethia	Crotalaria agat	Burguriet	Adenocarpus mann	Cherungut chepkoraita	Plectranthus kame
	Crotalaria maue				
	Sesbania keni	Chackweet	Embelia schi	Chesamisiet	Clerodendrum myri
	Sesbania macr	Chemakwangiet	Rothmannia urce		Ritchiea albe
Mwigaigwa	Oncoba rout	Chemandliliet	Pavonia kili		Grewia temb
Mwondwe	Abutilon long	Chemaroriet	Pittosporum lana	Chesarebut	Grewia simi
Nduriru	Croton alie	Chemetet	Mikaniopsis usam	Chesereput	Turraea hols
Nyandetu	Urera hyps	Chemngariot	Pittosporum viri	Chesiseiyet	Erythrococca fisc
Rahigi	Psychotria maho	Chemnialiliet	Acacia elat	Chesiseiyey	Ficus glum
Ruano	Alchornea hirt		Acacia kirk	Chilgotwet	Pavetta gard
Ruasi	Psydrax livi	Chemochet	Acanthopale pube	Chorlwet	Nuxia cong
Ruathe	Psydrax parv	Chemosibit	Leonotis nepe	Chorua	Halleria luci
	Psydrax schi	Chemul	Senna sept	Chorwet	Rhoicissu trid
Ruitie	Dichrostachys cine	Chemul kwamberieriet	Vernonia urt	Dorodwet	Heteromorpha trif
		Chemul masaita	Heinsenia dier	Eman	Olea euro
Rumuki	Achyrosperrum carv	Chemul-mogoyuet	Ficus ovat	Emitiot	Tabernaemontana
		Chemul-mugoyuet	Ficus inge	Erendet	stap
Rurigi	Maytenus acum	Chepchai	Lannea schw		

Ewaat	Schefflera abys	Kobetiatab-osnet	Pavetta oliv	Lobotwet	Solanum inca
Getaruwet	Flueggia viro	Kochutoi	Clerodendrum	Logomaita	Macaranga kili
Goinyet	Lannea schw		rotu	Lulukwet	Cussonia hols
Jamisyat	Ficus exas	Kogoruet	Erythrina abys	Makwachit	Phyllanthus oval
Jilekwelet	Keetia guei	Koibeyot	Aeschynomene	Manareriat	Gerradanthus loba
Kaavagariet	Olinia roch		abys	Mangweta	Cassipourea malo
Kabigiriet	Schrebera alat	Koibeyot	Sesbania ken	Mase	Strychnos henn
Kabuneto	Myrica sali	Koipeyot ap tirita	Ormocarpum trac		Strychnos miti
Kaguruet	Maytenus sene	Kombeiet	Psychotria maho	Maseet	Psydrax parv
Kaibeyuwonyot	Erica arbo	Kombionet	Galiniera coff		Psydrax schi
Kalukiat	Halleria luci	Koresiet	Euphorbia obov	Maset	Garcinia buch
Kapluguet	Maytenus unda	Koriot	Teclea nobi	Masheget	Synadenium gran
Kapturesut	Bridelia scle	Kosisitiet	Rhamnus prin	Masiat	Gnidia lamp
Katarombechet	Chassalia subo	Kubusto	Alangium chin	Masombobet	Anthocleista gran
Katet	Acacia hock	Kuom bereriet	Vernonia brac	Menuet	Ricinus comm
Keburwet	Mystroxydon aeth	Kuom-tepengwet	Vernonia adoe	Mesiot	Triumfetta tome
Kelelwet	Croton dich	Kuombereriet	Microglossa pyri	Meswot	Sparrmannia rici
Keliot	Acokanthera schi	Kuomo	Bridelia micr	Mincheiwet	Indigofera swaz
Kelyo	Acokanthera schi	Kurbanyat	Clutia abys	Mindechwet	Indigofera arre
Kemeliet	Combretum moll	Kuriet	Teclea simp		Tephrosia emer
Kenchaiyet	Gnidia subc		Teclea tric	Minyeywet ap osnet	Phyllanthus sepi
Kepurwet	Osyris lanc	Kuserwet	Cotyledon barb	Modosiet	Pavonia uren
Ketarwet	Rhamnus stad	Kusisitiet	Erythrococca	Mogoiwet	Ficus syco
Ketarwet-nebo-bek	Salix subs		bong	Mogoyuet	Ficus sur
Ketet ap tieta	Maerua decu		Rhamnus stad	Moissot	Terminalia brow
Keturirit	Alchornea nept	Kwaipeyot	Erica arbo	Moiywet	Jasminum abys
Kibelibeliet	Tarenna grav	Kwam tebengwet	Vernonia lasi		Jasminum flum
Kibirirgorokiet	Pistacia aeth	Kwambereriet	Microglossa pyri	Monchororiat	Rhus vulg
Kibugony	Embelia schi	Labatiet	Dracaena afro	Mongoriot	Senna sept
Kigorwet	Maytenus hete	Labororiet	Stephania abys	Mororta	Allophylus abys
Kiguguria	Tephrosia inte	Labotwet	Solanum denn	Mosibit	Leucas gran
	Tephrosia nyik	Labotwet ap teta	Solanum indi	Mosibit ap tirita	Leucas glab
Kimanbiliot	Ziziphus mucr	Labotwet ne tenden	Solanum maue	Motiet	Dracaena elle
Kimbuet	Vangueria volk	Lagatanet	Ochna hols	Motirtiruet	Ficus trem
Kimolwet	Canthium lact	Lalwat	Mimusops kumm	Msaita	Olea cape
	Rytigynia uhli	Lalwet	Manilkara sulc	Muangaita	Cassipourea malo
	Vangueria apic	Lamaiyat	Schrebera alat	Muekelwet	Vitex doni
	Vangueria infa	Larabat	Piper cape	Mugurit	Acacia drep
	Vangueria mada	Legetetuet	Carissa edul	Mugurt	Acacia seya
	Vangueria volk	Legetetwa	Carissa edul	Mundugiti	Ochna hols
Kipirirpait	Ochna ovat	Legetuet	Strychnos henn	Munguyangiat	Rhynchosia hirt
Kipisorwet	Erythrina abys	Leldet	Acacia sieb	Muntuturiet	Ocotea keni
Kipkarkariet	Calodendrum cape	Leldingiyet	Abutilon long	Museset	Olinia roch
Kipkeriet	Pittosporum viri	Lelechuet	Tarchonanthus	Mutereriet	Bridelia micr
Kipkorkoriet	Argyrobium fisc		camp		Ehretia cymo
Kipkoskosit	Pterolobium stel	Leledonget	Hibiscus calo	Mwokiot	Lantana kitu
Kipkurkuriet	Crotalaria lach	Leltangoyet	Hibiscus calo	Mwokiyot	Lantana java
Kipkururiet	Crotalaria agat	Lemechwet	Syzygium guin	Nderiot	Garcinia buch
	Crotalaria pseu	Lemejwet	Ozoroa insi	Ngechepchat	Leucas calo
Kipsotet	Urea hysp	Lemuguyet	Syzygium cord	Ngenenet	Gardenia volk
Kiptablelet	Capparis fasc	Lendet	Acacia hock	Ngingichet	Landolphia buch
Kisengwet	Clematis brac	Lito	Boscia angu	Ngirgirit	Acacia brev

Ngolioniet	Euphorbia goss	Setyot	Mimulopsis solm	KISII	
Ngonyat	Pappea cape	Seyet	Albizia gumm	For this list I have had much help from Mr. David Okebiro Nyakundi, who not only checked the few names I had, but also added quite a number of names.	
Ngoswet	Balanites aegy	Siganet	Solanum acul		
Nogirwet	Cordia oval	Silibwet	Dombeya burg		
Nokiat	Dovyalis abys		Dombeya torr		
Nyarodotuet	Ficus sans	Simatwet	Curroia volu	Egesanga	Rhoicissus trid
Nyasiat	Celtis afri	Simbejwet	Scutia myrt	Ekeburabura	Prunus afri
Nyelwet	Adenia bequ	Simotuet	Ficus cord	Ekenagwa	Caesalpinia deca
Obetiet	Clerodendrum myri	Sinendet	Ficus nata	Ekenagwa ekiegarori	Toddalia asia
Ochmnyaliliet	Acacia xant	Singoruet	Periploca line	Ekenyanengo	Piper cape
Ortet-nebortich	Agauria sali		Clerodendrum john	Ekerachwoki	Euphorbia tiru
Osegeteti	Myrsine afri	Siriat	Rhus vulg	Engeng'ench	Solanum maue
Parageiyuet	Trichocladus elli	Sirondet	Rhus nata	Enkanda	Elaeodendron buc
Piribayat	Ochna ovat	Sirtuet	Acacia abys	Esarara	Flueggia viro
Poponet	Trema orie	Sisimwet	Artemisia afra	Esoko	Warburgia ugan
Porowet ap teta	Cadaba fari	Siwan-belion	Urera fisc	Eyesura	Acacia sieb
Ratuinet	Kigelia afri	Sogoet	Warburgia ugan	Kumukira	Comretum moll
Rerendet	Rauvolfia caff	Soke	Warburgia ugan	Obwari	Crotalaria lach
Rogoret	Rutidea orie	Sokwet	Cussonia hols	Omaraa	Combretum moll
Ruadet	Suregada proc	Sosiyot	Phoenix recl	Omobamba	Bersama abys
Ruandet	Lasianthus kili	Sumoiyot	Syzygium cord	Omobeno	Senna didy
Sabaitet	Neoboutonia kili	Suriet	Rhus nata	Omobondo	Tabernaemontana stap
Sagalituet	Anthocleista gran	Tabarariet	Stephania abys		
Sagawaita	Zanthoxylum usa	Tagaimamiet	Rubus spp.	Omobono	Ricinus comm
Sagawoita	Zanthoxulum gill	Takunwwuiet	Oncoba rout	Omochegechege	Senna sept
Sandam ngingi	Secamone stuh	Tangaratwet	Aloe daw	Omocheo	Indigofera arre
Sandap-ngingich	Secamone punc		Aloe kedo	Omogonchoro	Albizia gran
Sangainet	Solanum term	Tangotuet	Agauria sali		Albizia gumm
Saonet	Elaeodendron buch	Tarakwet	Juniperus proc	Omogumo	Ficus nata
		Tebesuet	Croton macr	Omoko	Euclea schi
Saoune	Myrianthus hols	Tegaat	Arundinaria alpi	Omokomoni	Vangueria acut
Saptet	Podocarpus falc	Tegeldet	Acanthus emin		Vangueria mada
	Podocarpus lati	Tenduet	Prunus afri	Omokorogoinwa	Dovyalis abys
Sasuriet	Allophylus abys	Terendet	Tabernaemontana stap	Omoku	Ficus sur
	Ensete vent			Omokunakuna	Hagenia abys
Sawanet	Elaeodendron buch	Terga	Arundinaria alpi	Omomiso	Triumfetta macr
		Tinet	Schefflera volk	Omomoa	Lobelia gibb
Sebetaiet	Spathodea camp	Tongotuet	Ilex miti	Omomure	Rauvolfia caff
Seep	Acacia sieb	Tumayot	Catha edul	Omomusi	Euclea divi
Seet	Albizia harv	Tuneyet	Landolphia buch	Omonamanengo	Rhamnus stad
	Haplocoelum foli	Tungoroloet	Flacourtia indi	Omonguna	Rhamnus prin
Segetiete	Phyllanthus fisc	Tungulurwet	Scolopia rham	Omonyakige	Warburgia ugan
Selebwet	Dombeya kirk	Tungururwet	Scolopia zeyh	Omonyamari	Ekebergia cape
Senetwet	Senna sept	Tungurwet	Oncoba spin	Omonyambeche	Rhoicissus trid
Serenguet	Lobelia gibb	Turukwot	Barleria vent	Omonyambenche	Rhoicissus trid
Sertwet	Acacia laha	Usuet	Eucle divi	Omonyamosuto	Vernonia amy
Serwendetii	Xymalos mono		Eucle race	Omonyanaigo	Phyllanthus oval
Set	Albizia gumm	Uswa	Eucle divi	Omonyangateti	Carissa edul
Setetit	Grewia bico			Omonyansuri	Clausena anis
	Grewia simi			Omonyenya	Acacia abys
	Grewia tric				Acacia laha

Omonyia	Trema orie	Kumufwora	Annona sene	Ludua	Euphorbia cand
Omonyiinga	Rytygynia spp.	Kumugumu	Lannea schi	Luhoiyahui	Ficus aspe
Omonyinkwa	Ocimum suav	Kumuimbi	Hymenodction	Lukeyu	Indigofera arre
Omoraa	Ficus sur		flor	Lukhuba	Dracaena frag
	Parinari cura	Kumukhendie	Allophylus ferr	Lukhuli	Aeschynomene
Omoratora	Plectranthus barb	Kumukhomeli	Garcinia buch		schi
Omorororia	Vernonia amyg	Kumukhondo	Acacia macr	Lukonsongabu	Keetia guei
Omorovianda	Abutilon long	Kumukhuyu	Ficus sur	Lumenenambuli	Lantana trif
Omosa	Faurea spp.	Kumukomboti	Ziziphus abys	Lumenzani	Turraea hols
Omosabakwa	Vernonia auri	Kumukumosi	Vangueria apic	Luumetsani	Leucas calo
Omosabisabi	Sesbania sesb	Kumulelalele	Protea madi	Lumumbumbu	Lannea fulv
Omosarigo	Solanum maur	Kumulinda	Parinari cura	Lunyili	Clematis brac
Omosenia	Ficus exas	Kumulonda-ngombe	Bridelia micr	Lusarari	Lepidotrichilia
Omosocho	Croton macr	Kumunyanya	Acacia laha		volk
Omotagara	Solanecio mann	Kumunyofwe	Elaeodendron	Lusasari	Allophylus ferr
Omotaranganga	Bridelia micr		buch	Luseno	Ficus aspe
Omotoronkanga	Bridelia micr	Kumupeli	Albizia cori		Ficus exas
Omotembe	Erythrina abys	Kumurembe	Erythrina abys	Lusesbi	Keetia guei
Omoterere	Maesa lanc	Kumusemwa	Syzygium guin	Lushesh	Mussaenda eryt
Omotobo	Solanum acul	Kumusilamosi	Senna sing	Lushelela	Rubus apet
	Solanum inca	Kumusobia	Vernonia myri	Lusiola	Markhamia lute
Onyinkwa	Lippia java	Kumusubiu	Albizia gran	Lusolokho	Artabotrys liki
Rikendo	Phoenix recl	Kumutare	Teclea nobi	Lusoroko	Ficus aspe
Risenia	Ficus exas	Kumutelende	Synadenium gran	Lusui	Diospyros abys
		Kumutomolo	Steganotaenia aral	Luvinu	Senna didy
		Kumuyekwe	Faurea spp.	Lweyi	Indigofera homb
		Kumuyenjayenja	Piliostigma thon	Mahorlu	Stereospermum
		Kumwayakhafu	Maytenus hete		camp
		Kunandere	Tabernaemontana	Manamulira	Alchornea laxi
			stap	Manguelo	Rutidea smit
Amuutu	Pavetta tern	Kunkomwo	Canthium lact	Marakalu	Acanthus pube
Apache	Warburgia ugan	Libingubingu	Ipomoea kitu	Masaba	Apodytes dimi
Bukarambi	Flacourtia indi	Libwabwa	Acacia hock	Mashembut	Entada abys
Embano	Dracaena frag	Lihori	Crotalaria lach	Mbalakhaya	Trilepisium mada
Enguu	Microglossa pyri	Likhomo	Chaetacme aris	Mbeshe	Afrosersalisia cera
Eshimwani	Garcinia buch	Liliambili	Mimulopsis solm	Mbulikha	Rinorea brac
Ikhomo	Chaetacme aris	Lirakalu	Acanthus pube	Mingitse	Tephrosia nyik
Ikoyi	Artabotrys liki	Lisala	Clerodendrum	Morabe	Kigelia afri
Indulandula	Solanum inca		john	Mshirakalu	Rawsonia luci
Inoyna	Nuxia cong	Lisebesebe	Maesa lanc	Msiingo	Ficus vall
Irojo	Trichilia emet	Liwongo	Tiliacora funi	Mubohu	Neoboutonia mell
Isambakhalu	Boehmeria macr	Lohori	Sesbania sesb	Mubonebone	Ricinus comm
Itikwa	Rutidea orie	Lototo	Ficus nata	Mudondo	Mussaenda arcu
Kabeya	Oncoba rout	Luabare	Toddalia asia	Muendu	Dodonaea angu
Kegoyogoyo	Indigofera trit	Lubambo	Nuxia cong	Mufutumwe	Vitex fisc
Kisangula	Premna ango	Lubelakhaya	Trilepisium mada	Mugangagu	Gnidia subc
Kisasari	Flueggia viro	Luburika	Rinorea brac	Mughambi	Triumfetta tome
Kisimbari	Zanthoxylum mild	Luburiko	Lepidotrichilia	Mughobari	Acacia mont
Kitandawabasia	Cussonia arbo		volk	Mugonju	Faurea spp.
Kumototo	Ficus nata	Lubushi	Monodora myri	Mugoso	Sapium elli
Kumuchanjasi	Euclea divi	Ludolia	Mimusops bags	Muhalia	Periploca line
Kumufungu	Kigelia afri	Ludolio	Manikara butu	Muholu	Vitex doni

LUHYA

With many thanks to Prof. J.O. Kokwaro and Mr. Wepuhkulu of the University of Nairobi, who checked this list.

Muhundui	Mystroxydon aeth	Musutsu	Croton macr	Shikumbumbu	Capparis tome
Muhunya	Maesopsis emin	Mutaro	Teclea nobi	Shikuti	Ehretia cymo
Muhutu	Vitex fisc	Mutere	Maesopsis emin	Shikuyense	Ficus trem
Mukaho	Macaranga kili	Mutobolo	Alangium chin	Shilauha	Plectranthus barb
Mukangu	Aningeria alti	Mutondo	Funtumia afri	Shimwani	Coffea euge
Mukavakava	Ficus verr	Mutsulia	Spathodea camp	Shinapateria	Dovyalis batt
Mukhandi	Craibia brow	Mutsuria	Spathodea camp	Shingulotso	Fagaropsis ango
Mukhonzuli	Albizia gran	Mutsutsu	Alchornea laxi	Shirakali	Oncoba rout
	Albizia gumm	Mutukuyu	Olea cape	Shirambatsa	Blighia unij
Mukoloho	Cassipourea ruwe	Mutundu	Trimeria gran	Shiriedso	Erythrococca atro
Mukuhakuha	Macaranga kili	Muvulu	Annona sene	Shiriedzo	Erythrococca
Mukumari	Cordia afri	Muyuch	Urera hyps		bong
Mukumasia	Uvariopsis cong	Mwadzi	Polyscias fulv	Shirietso	Erythrococca atro
Mukunga	Acacia laha	Mwanzu	Polyscias fulv		Turraea hols
Mukusa	Dombeya burg	Mwenbu	Lannea schi	Shiriezo	Dovyalis batt
Mukuyu	Ficus sur	Mwenye	Celtis afri	Shirikamabinga	Bersama abys
Mulemwe	Anthocleista voge	Mweyu	Celtis afri	Shishimbari	Clausena anis
Mululu	Chrysophyllum	Mwiritsa	Prunus afri	Shisimbali	Markhamia lute
	albi	Namasinzi	Casaeria batt	Shitaranda-nguo	Triumfetta tome
Mulundu	Antiaris toxi	Olokhongwe	Terminalia moll	Shitondo	Pavetta tern
Mumandala	Heinsenia dier	Olulando	Hymenocardia aci		Tabernaemontana
	Rothmannia urce	Olumulunya	Vernonia amy		vent
Munamakulu	Drypetes gerr	Olunani	Caesalpinia deca	Shitoto	Pavetta tern
Munamatolo	Rawsonia luci	Olusekhe	Jasminum dich	Shiunza	Celtis mild
Munamuliru	Croton sylv	Oluseshe	Jasminum abys	Shiviambinga-mekundi	Bersama
Munamuveka	Chassalia cris	Omishirinya	Pseudospondias		abys
Mundana	Leea guin		micr	Shughoma	Zanthoxylum rube
Mungaliguru	Premna ango	Omododo	Ficus ovat	Shungung'ng'ung'ani	Coffea euge
Mungoma	Cordia mill	Omubele	Albizia cori	Simbari	Zanthoxylum mild
Munuku	Morus meso	Omuhutu	Vitex doni	Sinamugulu	Drypetes gerr
Munyama	Trichilia emet	Omukhuyu	Ficus sur	Siuma	Gardenia tern
Munyenya	Acacia abys	Omulusya	Vernonia amy	Subuhu	Macaranga schw
Murave	Kigelia moos	Omutukuyu	Olea cape	Sulasula	Lippia java
Murerengeritsa	Craterispermum	Onduongi	Gardenia tern	Tsikhumumuru	Afrosersalisia cera
	schw	Ruturwo	Pauridiantha pauc	Utembe	Erythrina abys
Murumba	Milicia exce	Sabahua	Vernonia theo	Wanda	Apodytes dimi
Musa	Celtis gomp	Shekoye	Psydrax schi		
Musagala	Trema orie	Shekutu	Ehretia cymo		
Musamia	Bequaertioden-	Sheraha	Combretum coll		
	dron obla		Combretum moll	Chebagonot	Chionanthus mild
Musana	Deinbollia kili	Shibuku	Pseuderanthemum	Culdet	Bridelia micr
Musaretsi	Lepisanthes sene		ludo	Daugarasiet	Euphorbia ugan
Museno	Ficus exas	Shigeyu	Aeschynomene ab	Keliot	Acokanthera schi
Mushebeshebe	Maesa lanc	Shigulutsu	Zanthoxylum rube	Kelyo	Acokanthera schi
Musiema	Trichilia dreg	Shihanga	Mussaenda arcu	Kiguguna	Tephrosia inte
Musila	Harungana mada	Shikaalikanga	Combretum pani	Kiptablelet	Capparis fasc
Musine	Croton mega	Shikanyanga	Bridelia micr	Lalwat	Mimusops bags
Musingu	Ficus sur	Shikhomoli	Vangueria apic	Lemejwet	Syzygium cord
Musinzi	Trichilia emet	Shikuma	Clerodendrum	Sadbet	Podocarpus lati
Musundu	Croton sylv		myri	Tarotuet	Rhoicissus revo
Musuritsa	Vernonia amy		Hoslundia oppo	Tunayit	Jasminum abys
	Vernonia hyme		Zanthoxylum gill	Tunayit	Jasminum abys

LUMBWA

LUO		Bware	Boscia angu	Mubwasi	Agelaea ugan
With many thanks to Prof. J.O. Kokwaro of the University of Nairobi, who checked this list.			Leucas calo	Mukutan-achak	Syzygium cord
			Maerua angu	Murembe	Erythrina abys
			Maerua trip	Murut	Calpurnia aure
Abuna	Saba como	Chwaa	Tamarindus indi	Mweny	Lippia java
Achak	Mussaenda arcu	Det	Ormocarpum tric	Mwere	Dracaena frag
	Pittosporum mann	Dindi	Tinnea aeth	Ndwendwe	Tinnea aeth
Achaka	Sapium elli	Dunga	Combretum moll	Ng'ou	Ficus sur
Achara	Acacia sieb	Get	Ficus capr		Ficus vall
Achat	Scolopia zeyh	Gugna	Acacia drep	Ng'owo	Ficus sur
Achokra	Keetia guei	Jathohonda	Pavetta cras	Ngeta	Canavalia afri
Achugo	Clematis brac	Jobune	Saba como	Ngong'ngo'	Croton macr
Adero-moroko	Pavetta tern	Jwelu	Vitex fisc	Nre-puwo	Grewia vill
Adhiang'	Voacanga thou		Vitex-doni	Nyabend-winy	Lantana trif
	Tabernaemontana	Kagera	Flueggia viro	Nyabolo	Annona sene
	vent	Kalatera	Maesa lanc	Nyai-leka	Senna bica
Adieremo	Mussaenda arcu	Kalemba	Vitex-doni	Nyakom-ondiek	Polyscias fulv
Adugo	Acacia drep	Kalera	Cissus rotu	Nyaludhi	Allophylus afri
Ajua	Toddalia asia	Kang'o	Olea euro	Nyaluet-kwach	Toddalia asia
Akita	Plectranthus barb		Pachystela brev	Nyamrih	Lantana cama
Alaktar	Acacia laha	Kango	Psyrax schi	Nyamwoch	Allophylus rubi
Ale	Acacia seya	Keyo	Combretum aden	Nyandema	Maytenus sene
Ambach	Aeschynomene		Combretum coll	Nyandumira	Ozoroa insi
	elap		Combretum moll	Nyang'ony-akuodi	Vernonia adoe
Amoyo	Sapium elli	Kiluor	Acacia sene	Nyang-liech	Steganotaenia aral
	Maerua decu	Kudo	Acacia hock	Nyanyothi	Leucas gran
Amurukia	Rhamnus stad	Kuogo	Lannea schw	Nyariango	Stereospermum
Ang'orno	Triumfetta tome	Lang'o	Ziziphus mucr		kunt
Angin	Croton dich	Lango	Psyrax schi	Nyawend-agata	Spathodea camp
Angwe-rao	Lippia java	Lemo	Apodytes dimi	Nyawend-agwata	Celtis gomp
Anyidhra	Phyllanthus oval	Longo	Ziziphus mucr	Nyumba	Artemisia afra
Anyighira	Phyllanthus sepi	Lugusu	Dombeya kirk	Ober	Albizia cori
Anyuka	Keetia guei	Luochuoga	Apodytes dimi	Obinju	Ipomoea kitu
	Rytigynia negl	Madhako	Antiaris toxi	Obokeren	Psychotria pedu
	Vangueria mada	Madhari	Ozoroa insi	Obolangiso	Salacia cera
	Vangueria volk	Madungudungu	Spathodea camp	Ochod-obo	Suregada proc
Apindi	Rytigynia negl	Magwagwa	Lantana trif	Ochok	Solanum inca
	Vangueria mada	Makobo	Celtis gomp	Ochol	Diospyros abys
Aroya	Grewia simi	Manera	Terminalia brow		Lepisanthes sene
Arupien	Commiphora afri	Marowo	Solanecio mann		Mystroxyton aeth
Arupiny	Commiphora afri	Matata	Caesalpinia deca		Pseudospondias
Atego	Pyrostria phyl	Mathari	Maytenus sene		micr
Athuno	Bridelia micr	Mboto	Tarenna grav		Schrebera alat
Atilili	Psiadia punc	Mdhasa	Rinorea brac	Ocholo	Euclea divi
Ayiergweng	Boscia angu	Mdiritsamboko	Combretum pani		Euclea race
Bilo	Blighia unij	Mgojore	Albizia gran	Ochond-achak	Mimusops kumm
Bondo	Euphorbia cand	Midat	Teclea nobi	Ochond-atego	Allophylus afri
Bongo	Lannea schw	Migodha	Scutia myrt	Ochond-athuth	Trichilia emet
Bongu	Ficus ovat	Mikumi	Pavetta cras	Ochond-rateng'	Trichilia emet
Bonyo	Ficus amad	Minya	Cissus rotu	Ochuoga	Carissaedul
Bwar	Ocimum kili	Mkenye	Leucas gran	Ochwaa	Tamarindus indi
		Monjororoyat	Rhus vulg	Odar	Teclea nobi

Odhidho	Dombeya kirk	Otagalo	Acanthus pube	Tido	Ekebergia cape
Ofito	Dracaena frag		Piliostigmas thon	Umburu	Aeschynomene
Ofuyaendwa	Withania somn	Otako	Acanthus pube		elap
Ofwong'o	Hoslundia oppo	Othith	Phoenix recl	Wananda	Paullinia pinn
Oggon-achak	Blighia unij	Othoo	Balanites aegy	Yago	Kigelia afri
Ogongo	Acacia abys	Otiep	Acacia sene	Yuma	Erythrina exce
	Acacia poly	Otiyuom	Agelaea ugan		
Oguombula	Antidesma veno	Oturbam	Albizia zygi		
Ojuok	Euphorbia tiru	Owak	Albizia gran		
Oking	Dodonaea angu	Owich	Dombeya burg		
Okiri	Dichrostachys cin	Owinu	Senna didy		
Okita	Plectranthus barb	Oyieko	Sesbania sesb	Alasiti	Acacia albi
Okuoro	Pappea cape	Pedo	Harrisonia abys	Arapalwa	Pyrenacantha
Okwato	Caesalpinia deca	Pololok	Stereospermum		malv
Okwergweno	Clerodendrum		kunt	Dagerai	Euphorbia robe
	myri	Pop-aroya	Grewia simi	Eimim	Colutea abys
Okwot-pu	Calotropis proc	Powo	Grewia bico		Tephrosia inte
Olanda	Flemingia grah		Grewia moll	Eiti	Acacia mell
Olando	Indigofera arre		Grewia tric	Eiyemiyem	Indigofera arre
Olando-marachar	Tinnea aeth	Rabongo	Rhoicissus revo	Eluai	Acacia drep
Olemo	Ximenia amer	Rabuor	Pavetta cras	Emanange	Vernonia cine
Olua	Antiaris toxi	Rachar	Croton dich	Embeneyoi-pos	Pluchea oval
	Milicia exce	Rahande	Rhamnus stad	Embenyoi-dabas	Lobelia gibb
Oludhi-kuom	Allophylus rubi	Rangwekuot	Keetia guei	Embugoi	Pavetta doli
Olururuecha	Ocimum suav	Rayadhi	Gardenia tern	Endalati-ekolok	Ehretia cymo
Olusia	Vernonia amyg	Rayudhi	Gardenia tern	Endebessi	Acacia laha
	Vernonia auri		Gardenia volk	Endulelei	Solanum inca
	Vernonia lasi	Riengata	Lecaniodiscus	Endulelei-endim	Erythrococca fisc
	Vernonia theo		frax	Enduleleiindu	Erythrococca
Ombasa-aila	Mucuna giga	Rikikini	Landolphia buch		bong
Ombulu	Abrus prec	Roko	Erythrina exce	Engainagut	Rubus pinn
Omugu	Vangueria volk		Zanthoxylum chal	Engaiyaguji	Rubus volk
Omuya	Vangueria infa	Saa	Oncoba rout	Engaiyagut	Rubus steu
Ondiek	Mystroxyton aeth		Oncoba spin	Engamuluki	Boscia cori
Ong'ang luanda	Ochna ovat		Scolopia rham	Engangolol	Opilia camp
Ongata	Ipomoea kitu	Saie	Acacia gerr	Engaroji	Erythrina burt
Ongono	Capparis tome	Sangala-madongo	Rhus vulg	Engejenii	Leucas calo
Ongoriochuma	Acacia pers	Sangalarau	Rhus quar	Engese-mbaus	Ormocarpum tric
Onjak	Garcinia buch	Sangana	Dovyalis abys	Engisar-ngadung	Pterolbium stel
Opok	Terminalia moll	Sangla	Rhus nata	Engogomadhi	Pavetta subc
Opuk	Neoboutonia mell	Sangla-minwa	Clerodendrum	Engoigileboi	Sesbania keni
Orembe	Erythrina abys		rotu	Engoilei	Secamone stuh
Oriang	Acacia hock	Sangla-rau	Maesa lanc	Engokumati	Microglossa pyri
Osadhi	Vernonia hild	Sao	Oncoba rout	Engoriabiti	Dregea schi
Osaosao	Sesbania sesb	Seke	Jasminum flum	Engum	Rytigynia schu
Osawo	Sesbania quad	Siala	Markhamia lute	Enguruma-olaiyok	Lantana rhod
Oseke	Jasminum dich	Sigria	Acacia macr	Enjada-narok	Pseudarthria hook
	Jasminum schi	Siranyende	Pseudarthria hook	Enkaiswishoi	Rumex usam
Oseno	Cordia oval	Siri-siri	Mimosa pigr	Enkere-sampel	Phyllanthus sepi
Osiri	Acacia brev	Siunya	Clausena anis	Enkike-empan	Ormocarpum trac
	Scutia myrt	Sogo maitha	Warburgia ugan	Enkoroy	Indigofera swaz
Osiri madongo	Pterolobium stell	Songlo	Dovyalis abys	Enkoroye	Indigofera lupa

MAA

Many thanks for checking to Mr. T. Te-peny of the University of Nairobi.

Enkoyiankalani	Sesbania quad	Olawoshai	Trema orie	Olelerri	Scolopia thei
Enleusanoi	Euphorbia hete	Olawuo	Dombeya kirk	Olembenek-uni	Schrebera alat
Enongepiren	Garcinia livi		Dombeya rotu	Olemoran	Hoslundia oppo
Entarakwai-ekop	Anthospermum welw	Olbebe	Agauria sali		Ocimum suav
Entemelwa	Solanum tait	Olbibibi	Leonotis moll	Olemudongo	Rauvolfia caff
Entemulua-naibor	Solanum hast		Leonotis nepe		Salix subs
Entemulua-narok	Solanum sp. G		Leucas glab	Olemugutan	Albizia znth
Entiangenge	Landolphia buch	Olbiran	Leucas gran	Olendeti	Ficus nata
Entulelei	Solanum maue	Olbiribiri	Buddleja poly	Olengabbura	Rapanea mela
Enungomani	Protea gagu		Podocarpus falc	Olengararia	Pittosporum viri
Erankau	Acacia drep	Olbobongo	Podocarpus lati	Olengeraiyan	Pittosporum lana
Eremit	Salvadora pers	Olboldo	Euphorbia cand	Olenkuyaini	Heteromorpha trif
Ergadadamai	Platycelyphium voen	Olbugoi	Hagenia abys	Olentepesi	Acacia tort
		Olbulugulugi	Piliostigma thon	Ole paramunyo	Toddalia asia
Esenetoi	Senna sept	Olbungo	Trichocladus elli	Oleragai	Syzygium guin
Esoget	Elaeodendron buch	Olburin	Pavetta oliv	Olerai	Acacia albi
		Olbuobinik	Nuxia cong		Acacia seya
Esubukioi	Hibiscus calo	Olchani-lolpurkel	Turraea robu		Acacia xant
Geninyet	Gardenia tern	Oldaangudwa	Croton soma	Olerangai	Lepisanthes sene
Goneri	Commiphora camp	Oldagurguret	Pistacia aeth	Oleragat	Acacia seya
		Oldaleleni	Gardenia volk	Olereri-repi	Abutilon hirt
Lobereti	Phyllanthus sepi	Oldarpoi	Steganotaenia aral	Olesongoyo	Psoralea foli
Loduo	Turraea momb	Oldebesi	Kigelia afri	Oleteti	Adenium obes
Longurua	Kedrostis gije		Acacia laha	Oleuguru	Vernonia lasi
Nchamyangashi	Turraea abys	Oldebesi-anuwi	Acacia sieb	Olgebarinyei	Clutia abys
Ndabarararia	Stephania abys	Oldengararia	Grewia moll	Olgelai	Teclea nobi
Ndemulwa	Solanum indi	Oldenkesi	Euphorbia ugan	Olgierian	Faurea spp.
Ndulele	Solanum indi	Oldepe	Acacia sene	Olgerosha	Maytenus unda
Ngelenyei	Rhoicissus revo	Olderis	Acacia nubi	Olgeturai	Dodonaea angu
Ngobito	Tacazzea gala	Olderkersi	Phyllanthus fisc	Olgirigiri	Acacia brev
Ngobitorangai	Helinus myst	Oldiangularas	Delonix elat	Olgirisiyai	Gnidia subc
Nguirigirinyai	Struthiola thom	Oldiani	Phytolacca dode	Olgogoltim	Pyrostria phyl
Njatta-narok	Psychotria laur	Oldiasimbol	Arundinaria alpi	Olgorbobi	Synadenium gran
Norkipiren	Garcinia buch	Oldigeldi	Apodytes dimi	Olgorete	Acacia tort
Oito-orok	Acacia mell	Oldigeldi	Acanthus emin	Olgumei	Vangueria mada
Olabei	Psiadia punc	Oldimitil	Commiphora merk	Olgumi	Vangueria apic
Olaimorongai	Maytenus hete	Oldisigon	Dalbergia lact	Olgurdien	Diospyros abys
Olairamirami	Solanecio mann	Oldiyamiledei	Ipomoea kitu	Oliami-orok	Cassipourea malo
Olaiserariel	Gerrardanthus lob	Oldorko	Cordia quer	Olimisera	Adansonia digi
Olalwait	Mimusops bags	Oldule	Flacourtia indi	Oljani-oseba	Lobelia gibb
Olamai	Ximenia amer	Oldungorurwo	Ricinus comm	Oljarbolani	Acacia hock
Olamalogi	Cadaba fari	Oldungururwa	Flacourtia indi	Oljartoiyom	Galiniera coff
	Maerua trip	Oldurdien	Scolopia zeyh	Oljartuiyan	Psychotria frac
Olamaloki	Maerua angu		Drypetes gerr	Olkaamasia	Justicia cord
Olamuriaki	Carissaedul	Olduyesi	Suregada proc	Olkaiei	Vatovaea pseu
Olararaiet	Cissus rotu	Olebenyan	Strychnos miti	Olkeleliet	Gnidia glau
Olasaiyet	Withania somn	Oledat	Dracaena afro	Olkeparlu	Croton macr
Olasiti	Acacia sieb		Solanum term	Olkernet-me	Maerua decu
Olatunde	Capparis cart	Olekidong	Trimeria gran	Olketoloswa	Myrica sali
Olaturdei	Capparis fasc	Olekikuuni	Dracaena elle	Olkharasha	Sterculia afri
Olaturudei	Capparis fasc	Olekoru	Berberis hols	Olkibechus-orok	Anthospermum usam
			Vernonia adoe		

Olkibejus	Erica arbo	Olmatasiyn	Haplocoelum foli	Olokunonoi	Ozoroa insi
	Stoebe kili	Olmergoit	Croton mega	Ololfot	Cordia quer
Olkilenyei	Rhoicissus trid	Olmerra	Catha edul	Ololii	Ficus popu
Olkiloriti	Acacia nilo	Olmerumuri	Dichrostachys	Ololoirien	Olea euro
Olkimiguni	Psydrax schi		cine	Olontwalan	Adenocarpus
Olkinye	Euclea divi	Olmeswa	Pavonia uren		mann
Olkirenyi	Olinia roch		Sparmannia rici		Argyrolobium fisc
Olkisigang	Pappaea cape		Triumfetta flav		Crotalaria agat
Olkisushet	Clematis brac		Triumfetta tome		Crotalaria lach
	Clematis sime	Olmisereri	Sesbania macr		Crotalaria pseu
Olkitulwa	Garcinia livi	Olmisigidi	Rhus nata	Oloodo entonoda	Rawsonia luci
Olkoijuk	Prunus afri	Olmisigiyoioi	Rhus vulg	Olopito	Jasminum flor
Olkokola	Rhamnus stad	Olmorijoi	Acokanthera oppo	Olopongi	Erythrina abys
Olkonyil	Rhamnus prin		Acokanthera schi	Olorien	Olea euro
Olkumi	Canthium lact	Olmorogi	Dovyalis abys	Olorobironi	Syzygium cord
Ollalmoronaii	Maytenus sene	Olmorogi luwaso	Chaetacme aris	Olorten	Faurea spp.
Ollarashi	Calodendrum cape	Olmorogo	Dovyalis macr	Olorur	Cussonia hols
Ollegilowai	Aeschynomene	Olmororoi	Combretum moll	Olosajet	Euphorbia sche
	schi	Olmositet	Celtis afri	Olosarie	Trimeria gran
Ollegole	Euphorbia engl	Olmunyushi	Rhus vulg	Olosepakupes	Albizia gumm
Olleleshwa	Tarchonanthus	Olmurmuru	Albizia harv	Olosesiyet	Osyris lanc
	camp	Olmusakwa-entim	Solanecio mann	Olosida	Barleria vent
Olleragai	Bridelia micr	Olmusalala	Ensete vent	Olosijo	Tamarindus indi
Ollera	Acacia elat	Olmwaisoro	Psydrax schi	Olosiyiamalili	Acacia etba
	Acacia kirk	Olneligwat	Grewia simi	Olottini	Schefflera volk
Ollereroi	???	Olngaboli	Ficus glum	Olpiripiri	Podocarpus falc
Olobito	Jasminum abys		Ficus sur		Podocarpus lati
	Jasminum flum		Ficus vall	Olpipo	Halleria luci
Ologerdangai	Croton dich	Olngaswa	Balanites glab	Olpiron	Pavetta gard
Oloisamis	Ocimum lami	Olngolngwenyi	Acacia gerr	Olrarait	Cissus quad
Olloliondo	Olea cape	Olngoswa	Balanites aegy	olreteti	Maesa lanc
Ollorger	Cassipourea malo	Olnkulankulei	Caesalpinia volk	Olri	Grewia temb
Olossiamalil	Acacia etba	Olnyaan	Urera hys	Olrpande	Commiphora emin
Olmagirigiriana	Lantana trif	Olnyarusa	Suaeda mono	Olsagararami	Piliostigma thon
Olmagotogot	Clerodendrum	Olobai	Pavetta subc	Olsanah-gurure	Scutia myrt
	myri	Olobane-tiongata	Bersama abys	Olsani-onyukie	Embelia schi
Olmainiyen	Helinus myst	Olobarat	Psychotria orop	Olsegeteti	Myrsine afri
	Jasminum flor	Oloboni	Ficus sur	Olsenetoi	Senna didy
	Solanum term	Olodonganayuoi	Mystroxyton aeth	Olsibet	Grewia tric
Olmairongiro	Plectranthus kame	Ologomati	Agauria sali	Olsinoni	Lippia java
Olmakarikara	Premna resi		Vernonia brac	Olsioti	Allophylus ferr
Olmakongora	Lantana trif	Ologumati	Microglossa pyri	Olsoget	Elaeodendron
Olmaldei	Canthium lact	Oloilaile	Ziziphus mucr		buch
Olmangurai	Sclerocarya birr	Oloile	Euphorbia tiru	Olsogonoi	Warburgia ugan
Olmanguyu	Rhynchosia hirt	Oloilei	Euphorbia goss	Olsbukiai	Ekebergia cape
Olmankulai	Grewia vill	Oloingalani	Sesbania keni	Olsbukiai-orok	Dombeya torr
Olmusakwa	Vernonia auri	Oloireroi	Boscia angu	Olsbukioi	Dombeya burg
Olmasei	Tarenna grav		Maerua endl	Olsunguroi	Kigelia afri
Olmasiligi	Cotyledon barb	Oloisuki	Zanthoxylum	Oltangoringori	Delonix elat
Olmasoni	Turraea hols		usam	Oltarakwa	Juniperus proc
Olmatakuroi	Parinari cura	Oloiyobo-igook	Stephania abys	Oltapesi	Acacia tort
Olmatasia	Clausena anis	Olokii	Lycium euro	Olteti	Dregea abys

Oltiameleteti	Ipomoea hild	Aron	Tamarindus indi	Karabar	Rapanea mela
Oltikambu	Artemisia afra	Asubgwa	Euphorbia tiru	Kerbetwa	Canthium lact
Oltukai	Phoenix recl	Barsiginion	Myrica sali	Kerbut	Ekebergia cape
Oltulele-losirgoi	Solanum denn	Belei	Acacia mell	Ketbor	Solanum rens
Oltuyesi	Dodonaea angu	Benet	Podocarpus falc	Kibgetoyoa	Macaranga kili
	Tarenna grav	Beriotwa	Ficus vast	Kibogen	Myrica sali
Oltuyiesi	Psydrax schi	Bisung'wa	Clematis sime	Kiboroswe	Adenia vane
Olurur	Cussonia spic	Borawa, Borowa	Dombeya torr	Kibotion	Maesa lanc
Olyalilingi	Polyscias kiku	Chebiakwai	Myrica sali	Kimagoi	Vernonia brac
Olyeniyeni	Cocculus hirs	Chebobot	Clerodendrum	Kioswa	Clutia abys
Onogoret	Ficus inge		myri	Kipchochin	Pavetta oliv
Onogorre	Urera fisc	Cheboinoiywa	Clausena anis	Kipkeres	Toddalia asia
Orangaboli	Ficus syco	Chebongwony	Vernonia brac	Kipkogai	Withania somn
Orcharduyani-oibor	Ochna hols	Chekelel	Clutia abys	Kipkutai	Toddalia asia
Oreteti	Ficus thon	Chemnoa	Pittosporum lana	Kipsagas	Bersama abys
Orgimasarge	Jasminum schi		Pittosporum viri	Kipser	Rhamnus stad
Oring-lagaldes	Tetradenia ripa	Chemosong'	Lantana trif	Kipserere	Leonotis moll
Oringa-lalgaldes	Plectranthus lact	Chepsikara	Stoebe kili		Leucas gran
Ormakuluwet	Sacleuxia tube	Chepteretwa	Capparis cart	Kipset	Bersama abys
Oropondo	Lannea schw	Chesagon	Clerodendrum	Kipsoroin	Berberis hols
Osasimwa	Hyoericum revo		myri	Kipsugotit	Phytolacca dode
Osigawai	Solanum acul	Chesimia	Ocimum suav	Kiptamit	Vernonia adoe
Osimandei	Secamone punc	Choror	Acacia hock	Kiptare	Acacia brev
Osinande	Periploca line	Chorua	Buddleja poly	Kiptarrogon	Protea gagu
Osinendei	Periploca line		Nuxia cong	Kiptassi	Xymalos mono
Osingarwa	Clerodendrum	Choruwet	Buddleja poly	Kiris	Gnidia glau
	rotu	Chotwa	Commiphora afri	Kitaloswa	Myrica sali
Osoiyo	Euclea race	Chuina	Acacia hock	Kitangwa	Albizia anth
Ossiatiado	Alchornea frut	Gelelewa	Buddleja poly	Kobochon	Dregea rubi
Osubukioi-orok	Pavonia uren	Goloswa	Terminalia brow	Kogomboswa	Lantana trif
Osugunuo	Ficus cord	Gorgorwa	Erythrina abys	Komimok	Tinospora caff
Osuguru	Aloe kedo	Gororot	Impatiens sode	Kongara	Jasminum flor
Osupukioi-oibor	Abutilon long	Gorot	Lannea fulv	Korniswa	Acacia brev
Oyerri	Grewia lila	Iwambova	Rhoicissus trid	Korut	Lannea trip
Segeteti	Flueggia viro	Jeleikta	Cussonia spic	Kosisit	Rhamnus prin
Shatetai	Euphorbia robe	Jemasat	Ocimum suav	Kureswa	Euphorbia obov
Siborwet	Gouania long	Jemnoa	Pittosporum viri	Kuriot	Teclea simp
Siteti	Grewia bico	Jemokabyl	Osyris lanc	Kurteswa	Trichilia emet
	Grewia moll	Jemokimnerkeny	Solanum indi	Kwalolia	Hypericum revo
Sugumo	Ficus syco	Jepkerelony	Trimeria gran	Kwaloliong	Erica arbo
Sugurututi	Cissus quad	Jeptabirirwa	Pavetta abys	Kwiril	Fagaropsis ang
		Jeptue	Psydrax schi	Lebeiywa	Acacia nubi
		Jeptula	Abutilon maur	Legatetwo	Carissa edul
		Jeptuiya	Euclea divi	Lemaiyua	Syzygium guin
		Jesegao	Clerodendrum	Liss	Casaeria batt
			john		Catha edul
		Jibokemnerkeny	Solanum indi	Logotomwa	Ochna hols
		Kabonbonet	Ehretia cymo	Lolotwa	Lannea fulv
Aiman	Acacia brev	Kaibetwa	Canthium lact		Lannea schi
Aoun	Polyscias kiku	Kapkerelwa	Harrisonia abys	Lonwa	Tetradenia ripa
Ararat	Calotropis proc	Kapkerengerwa	Ipomoea spat	Losin	Allophylus abys
Arolwa	Sclerocarya birr	Kapsagas	Bersama abys	Lugumwa	Teclea nobi

MARAKWET

Many names have been taken from R.S. Lindsay's "Medicinal plants of the Marakwet, Kenya" (Royal Botanic Gardens, Kew, 1978).

Magilion	Gardenia volk	Sitaboin	Clutia abys	Mikwegwe	Bridelia micr
Maiyokwa	Faurea spp.	Sitotwet	Rapanea mela	Mnyorokianjoro	Lepidotrichilia
Manwa	Ricinus comm	Songoiywa	Zanthoxylum chal		volk
Matus	Pavonia uren	Songorurwa	Zanthoxylum chal	Mogu	Markhamia luci
Mborio	Maesa lanc	Sosaite	Podocarpus lati	Monde	Dombeya burg
Mendililwa	Dovyalis abys	Sosurwa	Ensete vent	Morogorogo	Cussonia hols
Mintiriwa	Dovyalis abys	Sumbeyiwa	Scutia myrt	Moru	Vitex keni
Mogonja	Dombeya rotu	Tabilikwa	Dodonaea angu	Mothangira	Olinia roch
	Dovyalis abys	Taboswa	Croton macr	Motoro	Celtis gomp
Momonwa	Rubus spp.	Tarakwet	Juniperus proc	Mtansu	Suregada proc
Mongurwa	Grewia vill	Teerkolwa	Maytenus hete	Mtonto	Cylicomorpha
Morori	Ehretia cymo	Tegaat	Arundinaria alpi		parv
Mugorusta	Dombeya rotu	Tegilde	Acanthus emin	Mu-unkuma	Monanthotaxis
Mundariwa	Dovyalis abys	Telak	Acacia laha		parv
Murguiyo	Uvaria sche	Tendewa	Cassipourea malo	Muako	Xymalos mono
Musat	Olea cape	Tendwet	Prunus afri	Muanje	Celtis mild
Musereti	Buddleja poly	Terga	Arundinaria alpi	Mubiribiri	Podocarpus grac
Muthat	Olea cape	Tergekwa	Solanecio mann		Podocarpus lati
Mutung'wa	Ozoroa insi	Terwech	Pavetta oliv	Muchambe	Strychnos henn
Mwokio	Lippia java	Tigagowa	Scutia myrt	Muchanja	Cassipourea malo
Nerkwa	Olinia roch	Tilomwa	Ziziphus maur	Muchogomo	Ekebergia cape
Nerkwo	Olinia roch	Tingwa	Schefflera volk	Muchuguchugu	Crotalaria agat
Ngechebwa	Leucas calo	Tinwot	Schefflera volk	Muengera	Cussonia spic
Ngobgwa	Acacia nilo	Tinyotwa	Ximenia amer	Muerere	Tabernaemontana
Ngoswa	Balanites aegy	Toboswa	Croton macr		stap
Nonoiywa	Ziziphus mucr	Toiyoiya	Ocimum suav	Muethu	Trema orie
Ochon	Saba como	Tolgokwa	Scutia myrt	Muganjuki	Monanthotaxis
Pising	Clematis spp.	Torokwa	Juniperus proc		schw
Reberwa	Syzygium cord	Torotwa	Rhoicissus trid	Mugaruturu	Margaritaria disc
Reno	Acacia seya	Tungururwa	Flacourtia indi	Mugeta	Rapanea mela
	Acacia xant	Turugogwa	Vernonia auri	Mugimbi	Ochna ovat
Ribotio	Maesa lanc	Tuyunwa	Balanites aegy	Muginyie	Abrus schi
Rotio	Kigelia afri	Yemit	Olea euro	Mugiri	Canthium olig
Sarkelat	Indigofera arre			Mugonyone	Afrocrania volk
Sayit	Afrocrania volk			Mugorona	Rhamnus prin
Se	Albizia gumm	MERU			Keetia guei
Sege	Ilex miti	Many thanks for checking to Mr. S.			Crotalaria lach
Segatet	Myrsine afri	Mathenge of the University of Nairobi.			Ficus thon
Segetetwa	Myrsine afri	Gikobo	Ensete vent	Mugumba	Halleria luci
Seite	Aningeria adol	Kailunjohi	Rytigynia bugo	Mujai	Calodendrum cape
Sekwan	Warburgia ugan	Kanusiathege	Helinus inte	Mujijo	Triumfetta tome
Senetwet	Senna didy	Karasambugi	Turraea hols	Mujogajoga	Hagenia abys
Seria	Rhus long	Keonya	Galiniera coff	Mukarakara	Allophylus abys
	Rhus nata	Kiankware	Clerodendrum		Ochna ovat
Serti	Podocarpus lati		john	Mukarati	Macaranga kili
Sesimwa	Artemisia afra	Kirao	Senna didy	Mukeu	Dombeya torr
Set	Albizia gumm	Kithuri	Euphorbia frie	Mukibia	Clausena anis
Seweruwa	Hagenia abys	Makuru	Ocimum kil	Mukinduri	Croton mega
Sikawa	Solanum acul	Mchanja	Suregada proc	Mukoko	Ensete vent
Simotuet	Ficus nata	Mchathi	Garcinia volk	Mukomere	Rothmannia urce
Sinindet	Periploca line	Mchuguchugu	Crotalaria axil	Mukondo	Olinia roch
Sirirte	Faurea spp.	Mgiri	Galiniera coff	Mukongoro	Lovoa swyn

Mukongura	Toddalia asia	Muthigi	Cordia oval	<u>Chapchabayet</u>	Casaeria bat
Mukovo	Agelaea hete	Muthingiri	Lonchocarpus	<u>Chebitet</u>	Acacia lah
Mukuengwe	Bridelia micr		buss	Cheburiandet	Vernonia amy
Mukui	Ehretia cymo	Muthirithi	Lippia kitu	Chemsel	Turraea hol
	Newtonia buch	Muthitha	Rapanea mela	<u>Chepkarerlong</u>	Trimeria gra
Mukundukundu	Mitragyne rubr	Muthithi	Tamarindus indi	<u>Chepkeleriet</u>	Celtis afr
Mukunguu	Erythrina mela	Muthuana	Berchemia disc	Chepkwaret	Lobelia gib
Mukuo	Cordia oval	Mutimuero	Calodendrum cape	<u>Chepngosoriet</u>	Lippia jav
Mukuriampungu	Fagaropsis ango	Mutimuiro	Diospyros abys	Cheptokoriet	Casaeria bat
Mukurue	Albizia gumm	Mutimweru	Elaeodendron	<u>Cheptuiyet</u>	Diospyros aby
Mukurukuru	Polyscias kiku		buch	Chilgatu	Hymenodyction
Mukuruu	Rhamnus stad		Ritchiea albe		flo
Mukuu	Ficus sur		Trichocladus ell	Chorua	Buddleja pol
Mulambu	Vernonia cine	Mutomboro	Solanecio mann		Nuxia con
Mulimutuni	Ochna ovat	Mutongu	Solanum inca	<u>Choru</u>	Buddleja pol
Munati	Pittosporum viri		Solanum rens	<u>Emdit</u>	Olea eur
Mungwani	Markhamia luci		Uvariiodendron	Ewait	Schefflera vol
Munogo	Casaeria batt		anis	<u>Irakwet</u>	Plectranthus bar
Munwiathenge	Turraea hols	Mutu	Rauvolfia caff	Kaimetiet	Acacia lah
Munyanwe	Harungana mada	Mutundu	Croton sylv	<u>Kakaawet</u>	Schrebera ala
Munyithia	Clausena anis	Mutungu(g)u	Commiphora emin	Kambezo	Salix sub
Mura	Sclerocarya birr	Mutuntuki	Neoboutonia macr	Kanet	Phytolacca dod
Muraga	Flacourtia abys	Mutuya	Myrianthus hols	<u>Kapchobiniot</u>	Dovyalis mac
Murage	Berberis hols	Mutwati	Trichilia emet	Kapkarasiet	Gnidia gla
Murana	Juniperus proc	Muukuru	Olea cape	<u>Kararuet</u>	Erythrina aby
Murantina	Kigelia afri	Muura	Ocotea usam	Keliot	Acokanthera sch
Murariki	Ricinus comm	Muuru	Vitex keni	Kelya	Acokanthera sch
Muremantoru	Psiadia punc	Muzigio	Cordia afri	<u>Kenduiwet</u>	Diospyros aby
Murembu	Ehretia cymo	Mwanga	Millettia dura	Keptengani	Coffea eug
Murera	Acacia xant	Mwangu	Bauhinia tome	<u>Kibabustaniet</u>	Maesa lan
Muretu	Teclea simp	Mwangua	Millettia tana	<u>Kibuimetiet</u>	Bersama aby
Muriri	Milicia exce	Mwaraka	Plectranthus barb	<u>Kimoluet</u>	Vangueria inf
Muriru	Syzygium guin	Mwege	Oncoba spin	Kipsakiat	Pipistigma tho
Murithi	Strombosia sche	Mwengo	Dalbergia mela	<u>Kipsebuet</u>	Neoboutonia mel
Muriuntui	Olea cape	Mwenyuka mwago	Maesa lanc	Kobot	Phytolacca dod
Muro	Dovyalis abys	Mweria	Prunus afri	<u>Koibeiyot</u>	Aeschynomene
Murumbega	Dalbergia lact	Ngakula	Rhamnus stad		sch
Murumu	Fagaropsis ango	Thilarii	Ziziphus abys	Korkos	Pterolobium ste
Mururi	Milicia exce	Turukum	Apodytes dimi	<u>Kwamakonja</u>	Chaetacme ari
Mururu	Acokanthera oppo			Laburiko	Lepidotrichilia vol
	Acokanthera schi			Lagatet	Ochna ins
Mushabe	Albizia tang			<u>Lamaiywet</u>	Syzygium gui
Musunui	Warburgia ugan			<u>Lebekuet</u>	Dracaena afr
Mutanguru	Aningeria adol			<u>Legetetuet</u>	Carissa edu
Mutarauka	Allophylus abys			Legetetwa	Carissa edu
Mutemana	Rawsonia luci			<u>Lekweliet</u>	Keetia gue
Mutete	Anthocleista gran			Lebujan	Monanthotaxis
Muthandathandi	Bersama abys				sch
Mutharagwe	Diospyros abys			<u>Leliat</u>	Mimusops bag
Muthatha	Olea euro	<u>Asenuet</u>	Combretum col	Licht	Flacourtia ind
Muthautha	Pleiocarpa pycn	<u>Bembet</u>	Dalbergia lac		Scolopia the
Muthiama	Blighia unij	Boranet	Ehretia cym	Lomoiwesi	Psychotria kir

NANDI

The names which are underlined have been confirmed or corrected by Mr. Joshua Kibiwott Chepsiror of Eldoret, to whom I am very grateful. All other names can be classified as doubtful, at least for the Nandi language; they might be one of the other Kalenjin dialects.

Lugureko	Mussaenda ery	Sisinuet	Erica arb	Kipworbet	Aningeria adol
<u>Mabondet</u>	Tabernaemontana sta	Sitot	Pittosporum vir	Koriot	Teclea nobi
Marteet	Cassipourea ruw	Situtua	Rapanea mel	Korsisitiet	Rhamnus prin
<u>Martit</u>	Cassipourea mal	<u>Soiyet</u>	Polyscias ful	Korsosiat	Rhamnus stad
Mashembut	Entada aby	Sumeyot	Protea gag	Kuriot	Teclea simp
<u>Masineitiet</u>	Croton meg	Tarakiet	Afrocrania vol	Kwarabariet	Rapanea mela
<u>Mobet</u>	Markhamia lut	<u>Tarakwet</u>	Juniperus pro	Kwasisitwo	Rhamnus prin
Mogoiduet	Protea gag	<u>Tegat</u>	Arundinaria alp	Lagatanet	Ochna hols
<u>Mogoiwet</u>	Ficus sur	Tegeldet	Acanthus emi	Legumeta	Macaranga kili
<u>Monjororoiyat</u>	Rhus nat	Tegelitet	Acanthus pub	Leldingiyet	Abutilon long
<u>Mosomboriet</u>	Faurea sali	Teldet	Acanthus pub	Lito	Maerua trip
<u>Mseset</u>	Sapium ell	Tilatiliyet	Ekebergia cap	Logatanet	Ochna ovat
<u>Murguiwet</u>	Olea cap	Timbiriandet	Acacia hoc	Logomaita	Macaranga kili
Muspchya	Leucas gra	Tingwet	Turraea hol	Logononoi	Ozoroa insi
Namasingi	Oxyanthus spe	<u>Tungururiet</u>	Helinus mys	Loitugumi	Euphorbia engl
Neunet	Craibia bra	<u>Twendet</u>	Flacourtia ind	Lolokwet	Cussonia spic
Ngarawi	Maytenus sen	<u>Usuet</u>	Prunus afr	Londongoniyo	Mystroxydon aeth
Ngoruet	Bridelia mic		Euclea div	Lorosero	Vernonia cine
Njororuet	Hagenia aby		Toddalia asi	Lorrbut	Leucas calo
<u>Noiywet</u>	Fagaropsis ang			Lowisto	Oncoba rout
<u>Nukchat</u>	Dovyalis aby			Mangweta	Cassipourea malo
Nyarogwet	Ficus tho	Arapsoi	Rhamnus stad	Marut	Warburgia ugan
Parageiguet	Trichocladus ell	Baragaya	Trichocladus elli	Mase	Olea cape
<u>Peptarit</u>	Lantana tri	Barassinti	Psydrax schi	Msalakanu	Celtis afri
Petiapteriet	Lantana tri	Barbowet	Protea gagu	Muachet	Spirostachys vene
<u>Pionyet</u>	Lepidotrichilia vol	Beriakaya	Trichocladus elli	Netuala	Polyscias fulv
<u>Ratinuet</u>	Kigelia afr	Chemnaliliyet	Afrocrania volk	Nkoma	Rytigynia uhli
Ruandet	Psydrax sch	Chepcharaiyet	Caearea batt	Nukchat	Faurea spp.
Saganuet	Allophylus aby	Cheptuyeyptumo	Maytenus unda	Ol-peron	Dovyalis abys
<u>Samutet</u>	Cordia afr	Chomisiat	Grewia simi	Olunit	Psychotria kir
Saptet	Podocarpus lat	Derendet	Tabernaemontana stap	Olunit	Polyscias fulv
Sasia	Clematis bra			Oloruet	Ekebergia cape
<u>Sasuriyet</u>	Ensete ven	Eburua	Maytenus unda	Oroyuet	Ekebergia cape
Sebesebet	Macaranga kil	Gambunibuni	Euclea race	Ortet	Agauria sali
<u>Sebetaiyet</u>	Spathodea cam	Gugutu	Vernonia brac	Pinet	Buddleja poly
<u>Sebetuet</u>	Ficus syc	Iamaata	Solanum giga	Rararuet	Ekebergia cape
Segersa	Pittosporum lan	Ilkisuchi	Clematis brac	Simoyot	Protea gagu
Segetetiet	Phyllanthus fis	Intuteliot	Solanum inca	Singoruet	Clerodendrum john
<u>Senetuet</u>	Senna did	Ioukoubuu	Pluchea oval	Sogoniet	Scolopia zeyh
<u>Seretuet</u>	Acacia aby	Jiemdet	Olea euro	Tabonet	Pittosporum viri
<u>Seet</u>	Albizia gum	Kabideleliet	Olinia roch	Teet	Juniperus proc
Seyet	Albizia gum	Kabigiriet	Olinia roch	Tegat	Arundinaria alpi
Shamut	Ehretia cym	Kalkaldet	Xymalos mono	Tenduet	Prunus afri
Shibe	Maytenus sen	Kalochat	Halleria luci	Tete	Calpurnia aure
Shikoia	Salacia cer	Kasikongo	Pappea cape	Tongotuet	Ilex miti
Sibokuwet	Dombeya tor	Kepteleliet	Bersama abys		Pittosporum viri
Sigeri bangi	Coffea eug	Kigorwet	Maytenus hete	Tumayot	Catha edul
Silipchet	Dombeya tor	Kikomiti	Zanthoxylum chal	Womboriot	Toddalia asiat
<u>Simotuet</u>	Ficus nat	Kipkoskosit	Pterolobium stel	Yemdid	Olea euro
<u>Siriati</u>	Rhus nat	Kipsanganyet	Albizia gran		
Siritiot	Ficus ova	Kipuietuet	Bersama abys		

NDOROBO

NJEMPS

Ilkogoni	Grewia tena
Lamayoki	Maerua decu
Lokuru	Lantana vibu
Lpupoi	Grewia vill

OKIEK

Beregeiwet	Trichocladus elli
Berikaandet	Trichocladus elli
Lelnet	Acacia abys
Mosaita	Olea cape
Mosotik	Olea cape
Mundereriet	Ehretia cymo
Olerenit	Olea euro
Poponit	Casaeria batt
Sapoitit	Ficus thon
Sinendet	Periploca line
Tamugot	Dovyalis abys
Tegendet	Acanthus pube
Tikeltit	Acanthus emin
Toropchiot	Hippocratea afri

ORMA

These names have been taken from "A checklist of indigenous trees and shrubs of Bura, Tana River District, Kenya with Malakote, Orma and Somali names" by Gachathi, Alakoski-Johansson & Johansson (1987). All these names have been double-checked by clan elders. I am grateful to Mr. Norman Gachathi for permission to use his data.

Ade	Salvadora pers
Afgub	Opilia camp
Alango	Terminalia brev
Allakal	Cadaba gill
Allakal	Maerua macr
Araba	Cordia mono
Araba	Ficus capr
Baddan	Balanites pedi
Baddan	Balanites rotu
Bamba	Melia volk
Bellam	Strophanthus mira
Bires	Terminalia prun
Bisik	Terminalia orbi
Bogh	Kigelia afri
Bura	Acacia elat
Bura-dima	Acacia sene

Burankis
Bururi
Chachaneh

Chalabdo
Dabaso
Dackdo
Dadech
Dakar
Dalana
Dalith
Dalith-hoko
Dalkath
Dambel
Danis
Dano
Dariss
Darsa
Deka
Deka-dubra
Dende
Dika
Dirri
Dujume
Durrur
Durte
Durte-galana
Gaajir
Gale
Gale
Gashir
Gherebe
Goloch
Gora
Gora
Gora
Goroms-garero
Gudis
Gurur
Habachu
Habalakes
Hadaraku
Handaraku-goldja
Hadhame
Hae
Hagarsu
Halaku-ajo
Hamares
Hancha-dimes
Haririgo
Haroru

Jatropha elle
Meyna tetr
Acacia paol
Acacia horr
Acacia nilo
Acacia tort
Commiphora edul
Acacia tort
Boswellia negl
Mimosa pigr
Euphorbia goss
Euphorbia cryp
Salvadora pers
Gardenia volk
Thespesia danis
Hunteria zeyl
Garcinia livi
Combretum acul
Grewia tena
Grewia temb
Dobera lora
Thylachium thom
Carphalea glau
Calyptrotheca tait
Lawsonia iner
Salsola dend
Tamarix nilo
Acacia rovu
Hippocratea afri
Salacia mada
Dobera glab
Combretum cons
Acacia buss
Capparis fasc
Capparis sepi
Harrisonia abys
Ehretia sp.
young Acacia tort
Jatropha dich
Albizia anth
Acacia mell
Lannea trip
Lannea trip
Euphorbia robe
Wrightia dema
Commiphora pseu
Cissus aphy
Caesalpinia trot
Tennantia senn
Terminalia brow
Grewia bico
Grewia dens

Haroru-hadda
Hidi
Huda-hodo baddah
Huda-hudo loni
Ilkabath
Jajab
Jirmach
Kalawille
Kalkach
Kalkach-hare
Karapela
Karo
Kate
Kate-dimtu
Kate-gurati
Kawisa
Khararri
Kilchacho
Kitol
Koboch
Koboo
Kolati
Kolati-gurati
Komorto
Komper
Konchor
Kone
Konkon
Korobo
Kororo
Kosaiye
Kosaiye-rea
Kote
Kukube
Kukube-tari
Kumuudhe
Kuro
Lalafto
Lilu
Lukisa
Mader
Mader-warabesa
Mafuno

Grewia stuh
Grewia plag
Solanum inca
Ximenia amer
Sclerocarya gill
Cadaba rusp
Berchemia disc
Hildebrandtia sepa
Euphorbia brev
Boscia cori
Elaeodendron aqui
Cadaba fari
Maerua trip
Clerodendrum
acer
Gardenia fior
Blepharispermum
lanc
Premna resi
Cadaba fari
Gyrocarpus haba
Sterculia afri
Commiphora conf
Strychnos decu
Maytenus hete
Maytenus sene
Ricinus comm
Mimusops obtu
Diospyros mesp
Phyllanthus soma
Commiphora afri
Phoenix recl
Hyphaene comp
Combretum here
Terminalia parv
Flueggia viro
Givotia gosa
Cephalocroton
cord
Cordia quer
Maerua denh
Maerua decu
Lannea alat
Commiphora
camp
Populus ilic
Sesamothamnus
buss
Euclea nata
Cordia quer
Cordia cren
Sterculia appe

		POKOMO		POKOT	
Manocha	Premna velu				
Marafa	Borassus aeth				
Matompa	Lecaniodiscus	Alkadhi	Croton meny	Abele	Pleurostyliya afri
	frax	Bungo	Strychnos spin	Adokomurai	Solanum hast
Meti	young Hyphaene	Gora	Cordia faul	Akelkelyan	Barleria sp. D
	comp	Ilkeshemi	Leonotis nepe	Akwichanian	Maytenus sene
Middan-kajibwa	Momordica spin	Lalaftu	Populus ilic	Alakanta	Cussonia spic
Mirole	Newtonia hild	Lukisa	Euclea nata	Anywa	Acacia refi
Muchuchata	Cordia goet	Malasa	Abutilon maur	Apat	Grewia bico
Muk-bee	Parkinsonia anac	Mbavu-ngombe	Grewia trun	Apetaa	Terminalia prun
Muk-fadjie	Adenium obes	Mchangwa	Elaeis guin	Arerenyon	Cadaba fari
Muk-gurach	Lamprothamnus	Mchomia	Lamprothamnus	Aron	Tamarindus indi
	zang		zang	Aruru	Maerua decu
Muk-rugha	Calotropis proc	Mdeno	Hunteria zeyl	Asiokonyon	Salvadora pers
Muk-sala	Jatropha spic	Mfuno	Sterculia appe	Atula	Indigofera arre
Muksatawo	Platycelyphium	Mkipende	Anisotes ukam	Banyirit	Acacia mell
	voen	Mkokola	Terminalia brev	Bilil	Acacia nubi
Munyagat	Acacia robu	Msoka	Cassia abbr	Biriokwo	Pappea cape
Abbe	Adenia glob	Msukari	Strychnos decu	Buterwo	Canthium lact
Odha	Ficus syco	Mtolo	Spirostachys afri	Chekwo	Steganotaenia aral
Ogomdi	Grewia vill		Spirostachys vene	Chelewo	Pittosporum viri
Oronkio-gala	Grewia lila	Mtolotolo	Spirostachys vene	Chemakol	Dregea stel
Osatari	Acacia hamu	Muade	Salvadora pers	Chemangayom	Acacia sene
Rhoka	Tamarindus indi	Mubavungombe	Grewia forb	Chemchir	Vepris ugue
Righ	Acacia refi	Muchovi	Capparis tome	Chemokol	Dregea rubi
Sadek	Caesalpinia bond	Muchumi	Kraussia kirk	Chepanyirit	Maerua oblo
Safarra	Moringa borz		Pavetta spha	Chepokurus	Kanahia lani
Shiko	Oncoba spin	Muchuwa	Oxystigma msou	Cheporon	Senna obtu
Sholole	Uvaria lept	Mugandama	Rinorea elli	Chgepororwa	Leucas cal
Sobonah	Acacia sene	Mugau	Mimusops frut	Chepsigaga	Hypericum revo
Soke	Trichilia emet	Muh'puju	Oncoba spin	Cheptokelat	Ficus wake
Sukele	Delonix elat	Muhahe	Cordia quer	Cheptonge	Abutilon long
Tira	Anisotes tane	Muhandarako	Lannea schw	Cheptuya	Euclea race
Tokocho	Commiphora unil	Muhumbe	Lecaniodiscus	Chepususwo	Maerua decu
Tuk	Cadaba glan		frax	chepurosbo	Combretum moll
Tutatu	Anisotes ukam	Mukami	Newtonia erla	Chepyat	Kedrostis gije
Udesi	Commiphora rost	Mukithanga	Psydrax polh	Chesotim	Turraea parv
Umu-shimpirea	Abrus prec	Mukolle	Grewia dens	Chesuvarian	Vernonia cine
Waachu	Acacia zanz		Grewia stuh	Chetoye	Schrebera alat
Wadida	Euphorbia tiru	Mukone	Grewia plag	Chooh	Acacia hock
Wange	Acacia nubi	Mukone-moruke	Grewia trun	Churutwa	Lonchocarpus erio
Waradhe	Manilkara moch	Muluhi	Erythroxylum fisc	Hatat	Acacia abys
Warareb	Commiphora cand	Mungombe	Pavetta spha		Acacia elat
Woles	Erythrina mela	Mununahi	Alangium salv	Kaboyne	Jasminum flor
Wolkon	Spirostachys vene	Munyoka	Tarenna grav	Kachichin	Leonotis nepe
Yak	Adansonia digi	Muoro	Thespesia dani	Kaluny	Adenium obes
		Murighati	Rinorea elli	Kalyan	Acokanthera schi
		Muroro	Polysphaeria mult	Kamakitan	Albizia adia
		Mwinyonye	Suaeda mono	Kamarian	Ormocarpum kirk
		Olate	Diospyros corn	Kaparamenion	Lawsonia iner
		Repko	Spathodea camp	Kaparsamogh	Alchornea frut
		Wakama	Strophanthus cour	Kapenyan	Hibiscus caly

Kaptarru	Acacia brev	Muyokwa	Faurea spp	Tirkirwa	Vitex doni
Karatutwa	Dovyalis abys	Nyerkich	Tacazzea apic	Tirokwo	Ziziphus mucr
Kekechw	Premna resi	Nyirmenwo	Hildebrandtia	Tiyin	Dichrostachys
Kelowo	Vatovaea pseu		obco		cine
Kerekerekeyong	Ochna insc	Nyurumenwo	Turraea bomb	Tlomwa	Ziziphus maur
Kerepurwa	Maytenus unda	Ohokowa	Maerua trip	Toporenwo	Cordia quer
Kinyotwo	Ximenia amer	Opokwo	Acacia nilo	Toporewo	Cordia oval
Kiptarpotich	Flueggia viro	Oroluo	Sclerocarya birr	Torokwa	Juniperus proc
Koka po cheporon	Phyllanthus fisc	Oron	Albizia gumm	Toronwo	Grewia temb
Koliya	Adenium obes	Panyarit	Acacia refi		Grewia tena
Koloswo	Terminalia brow	Papan	Albizia amar	Tulungwo	Meyna tetr
Komolwao	Vangueria mada	Parapara	Myrsine afri	Tumwen	Euphorbia tiru
Komolwo	Canthium lact	Patach	Tarenna grav	Tutuyon	Cissus quad
Kopululwo	Gardenia volk	Pelili	Acacia nubi	Tuvunwo	Balanites aegy
Korkorkeyon	Ochna ovat	Pkapuyan	Abutilon hirt	Tuwio	Maerua cras
Korkorwo	Erythrina abys		Triumfetta flav	Tuwot	Diospyros scab
Korosion	Dobera glab	Pkata	Lycium euro		
Korteswa	Trichilia emet	Pondon	Ricinus comm		
Kromwo	Ozoroa insi	Prokokonyon	Dalbergia micr		
Ktenyon	Combretum capi	Pulomnyon	Chasmanthera	Ad'gorad	Lycium euro
Kukengo	Strychnos spin		depe	Aluia	Acacia nubi
Kukugho-onyot	Oncoba spin	Rena	Acacia seya	Andiqa	Euphorbia cune
Kunyan	Indigofera arre	Ririon	Delonix elat	Argi	Justicia odor
Kurion	Teclea nobi	Rotin	Kigelia afri	Baia	Blepharis frut
Kwarkwarian	Cissus rotu	Sangak	Acacia albi	Bejelo	Lannea alat
Likwon	Boscia angu	Sarkach	Solanecio mann	Bilahren	Acacia mell
Lilwo	Sterculia sten	Sayit	Afrocrania volk	Bubunto	Delonix elat
Lokotetwo	Carissa edul	Selta	Nuxia cong	Chachalleh	Combretum acul
Lolotwo	Lannea fulv	Ses	Acacia tort	Dabach	Grewia moll
Lomion	Balanites pedu	Shimayon	Hoslundia oppo	Dahar	Acacia nubi
	Balanites rotu	Sigikwa	Casaeria batt		Acacia tort
Lonuo	Tetradenia ripa	Sinendet	Periploca line	Dollo-taraabet	Euphorbia
Lopara	Lepidagathis scar	Sirtuot	Rapanea mela		tescorum
	Leucas jame	Siryewo	Rhus nata	Dume	Maerua cras
Lopotwo	Solanum rens	Sitat	Grewia bico	Fiehu	Adhatoda engl
	Withania somn		Grewia moll	Fololo	Ricinus comm
Lotou	Jatropha elle	Songowo	Zanthoxylum chal	Fulai	Acacia drep
Manampelion	Vepris glom	Sorwa	Hagenia abys		Acacia seya
Mandas	Maerua ang	Sosotwo	Ficus inge	Gaer	Cordia quer
	Maerua trip		Ficus popu	Gafafu	Lippia carv
Mariokwo	Haplocoelum foli	Supko	Ocimum kili	Geikuka	Cadaba fari
Merwo	Garcinia livi	Talamach	Ipomoea spat	Gelakwet	Vernonia cine
Moino	Lannea schw	Talamogh	Acacia mell	Gilorit	Acacia nilo
Mokongwa	Ficus syco	Tamrenwo	Uvaria sche	Golgol	Solanum tai
Morunguton	Dracaena elle	Tapinkpirwa	Vangueria apic	Gomor	Acacia horr
Mosonyon	Lippia kitu	Tapoyo	Lannea trip		Acacia paol
Muchukwa	Berchemia disc	Tarakit	Juniperus proc	Guuden	Ficus syco
Mugeriswa	Dombeya rotu	Taratwo	Rhoicissus trid	Hadu'un	Salsola dendr
Mukowo	Grewia vill	Tikit	Terminalia spin	Hagay	Salvadora pers
Mukutonwo	Albizia adia	Tikt	Terminalia prun	Hal	Juniperus proc
Mulkusion	Uvaria lept	Tipoiwa	Ficus cord	Hanlan	Lawsonia iner
Musktonyo	Combretum here	Tipoyuo	Capparis tome	Henadi	Vatovaea pseu

RENDILLE

Hobhob	Grewia fall	Biribiriti	Podocarpus lati	Iti	Acacia mell
Holieh	Acacia nubi	Borillo	Cussonia spic	Itiesi	Psydrax schi
Ilot	Craibia laur	Celiuk	Crotalaria nata	Itui	Maytenus unda
Jilhete	Leucas tome	Chibulukwa	Strychnos henn	Itulelei	Erythrococca bong
Khasah	Acacia refi	Dibiribiri	Podocarpus falc	Iyoret	Garcinia livi
Khorougoula	Sesamothamnus riva	Dume	Maerua endl	Jebetit	Phytolacca dode
Ki-dahan	Lawsonia iner	Echorre	Acacia refi	Kanguu	Acacia hock
Kulum	Balanites pedi	Eldekeci	Acacia sene	Kikeria	Faurea sali
	Balanites rotu	Elgalai	Teclea simp	Kokilai	Rhamnus stad
Lahauen	Caucanthus albi	Eyaonet	Apodytes dimi	Kokolai	Turraea momb
Lufute hadu'un	Suaeda mono	Gala-out	Solanum hast	Laama	Ximenia amer
Mariti haritiva	Bidens hild	Garacha	Erythrina abys	Laba	Psiadia punc
Masiat	Ocotea kenya	Girigiri	Acacia brev	Labai	Hoslundia oppo
Mirgi	Acacia etba	Hagar	Commiphora paol		Psiadia punc
	Acacia nilo	Idakat	Dolichos oliv	Labbo	Cassipourea malo
	Acacia sene	Idayasan	Ficus sur	Labechi	Calotropis proc
Mulanio-ti-lehun	Grewia lila	Ikalai	Drypetes gerr	Labuli	Ficus nata
Muluhango	Grewia tena	Ikasiyoi	Garcinia livi	Lageridingai	Croton dich
Muun	Kigelia afri	Ikenyeli	Rhamnus prin	Laibelesh	Calotropis proc
Nakule	Obetia radu	Ikokokai	Rhamnus stad	Laichimi	Commiphora schi
Namaniela	Premna resi	Ilagas	Lepidotrichilia volk	Lailipai	Delonix elat
Ngila	Vernonia aura			Laimai	Commiphora paol
Nioldoh	Lannea trip	Ilbalagiilagi	Trichocladus elli	Laimurunyai	Commiphora boiv
Nyaldokh	Lannea gree	Ilberi	Trichilia emet	Lairipai	Maytenus sene
Nyaror	Boscia cori	Ilchanai	Diospyros abys	Laitangeshoi	Grewia tena
Nyorohole	Jatropha parv	Ilchingei	Erythroxylum emar	Lakirdinga	Solanecio angu
Nyoroholi	Jatropha pela			Lalamoroi	Capparis sepi
Obepo	Grewia vill	Ildegilde	Acanthus pube	Lamai	Ochna ovat
Qasa	Ziziphus maur	Ilgeri	Lawsonia iner	Lamuriel	Ximenia amer
Ramo	Euphorbia cune	Ilgoita	Cordia sine	Lamuyeg	Carissa edul
Santaa	Ficus syco	Iligisiriko	Lepisanthes sene	Lanengure	Maerua edul
Sarkhudum	Kedrostis gije	Ilkinyai	Euclea schi	Laparana	Struthiola thom
Urmat	Blepharis lanc	Ilkalaasia	Sterculia sten	Lapironit	Jatropha dich
Yaqa aqurra	Diospyros scab	Ilkerereai	Cadia purp		Bridelia micr
Yeho	Meyna tetr	Ilkutekute	Allophylus abys		Bridelia tait
Yohola	Solanum inca	Ilngaboli	Ficus sur	Larachi	Calodendrum cape
Yohop	Gyrocarpus haba	Ilngorochoi	Capparis cart	Larasoro	Cadaba fari
		Ilnyiriei	Olea euro	Larogash	Tarenna grav
		Ilporowai	Dombeya burg	Larugach	Canthium lact
			Dombeya goet		Psydrax parv
			Lonchocarpus erio	Lasamarai	Pistacia aeth
			Pistacia aeth	Latacha	Maerua oblo
			Casaeria batt	Latalesi	Dregea abys
			Tephrosia emer	Laturudei	Capparis fasc
			Kigelia afri		Scutia mari
			Encephalartos tegu	Lawai	Delonix elat
			Grewia tena	Layamai	Commiphora boiv
			Grewia temb	Lbokish	Combretum here
			Grewia ecta	Lboringo	Cordia afri
			Strychnos miti	Lbukoi	Terminalia brow
				Lcheni-oibor	Ilex miti

SAMBURU

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Aduom	Salsola dend	Iri
Agar	Commiphora paol	Irii
Ambrori	Lannea riva	Irii-loldoinyo
Arakaulu	Apodytes dimi	Itagurmut

Lcheni-orbor	Pavetta abys	Lnyalikoi	Trema orie	Mulingula	Maerua trip
Lcheniioibor	Drypetes gerr	Lodto	Justicia odor	Muruguti	Harrisonia abys
Lcheningiro	Commiphora afri	Loenieni	Jasminum schi	Natama	Psychotria phyl
Lchingei	Euclea divi	Logiteng	Ipomoea spat	Ncheni-orok	Turraea parv
Ldalampo	Entada lept	Loilalei	Ziziphus mucr	Ngaliyoi	Grewia simi
Ldepe	Acacia nubi	Loisinkiriatshoi	Adenia vene	Ngeliot	Tetradenia ripa
Ldolol	Ipomoea cica	Loiyangalani	Sesbania sesb	Ngereni	Sapium elli
Ldumei	Maerua cras	Lokei	Lycium euro	Ngilenyai	Syzygium cord
Leachachur	Ehretia cymo	Lokitengi	Ipomoea cica	Nginyei	Euclea schi
Leachar	Capparis cart	Lokitimu	Stephania abys	Ngoromosui	Vangueria mada
Leberondo	Nuxia oppo	Lokomati	Vernonia brac	Ngurangura	Buddleja poly
Lebokich	Terminalia orbi	Lolbiriti	Phyllanthus sp.	Njasi	Vatovaea pseu
Lechapirik	Erythrococca bong	Lolderikesi	Acacia sene	Nkaputi	Vernonia lasio
Lechoro	Bauhinia tome	Lolio-ontoi	Olea cape	Nkodidong	Dracaena elle
Leekurun	Withania somn	Loloroi	Flacourtia indi	Ntulelei	Solanum rens
Legili	Dichrostachys cine	Lomoro	Dovyalis abys	Nyoosia	Heywoodia luce
Lekipiria	Rytigynia negl	Londongoniyo	Mystroxyton aeth	Olbororio	Cussonia hols
Lekunono	Ozoroa insi	Loponyi	Ficus sur	Olbugui	Faurea sp.
Lekuriki	Pittosporum viri	Lorien	Olea euro	Olmukutan	Albizia anth
Lekweita	Ormocarpum tric	Lororoi	Boscia angu	Olmurilengirion	Adenia vene
Lelei	Craibia laur	Lorsanjo	Moringa sten	Olongoronok	Pistacia aeth
Lemalam	Prunus afri	Lositeti	Trema orie	Rangan	Acacia gerr
Lemaloni	Premna resi	Lossantsho	Moringa riva	Rangau	Acacia drep
Leminyani	Lippia carv	Lotokon	Leucas jame	Raraiti	Cissus rotu
Lemurran	Ocimum suav	Lowuai	Balanites aegy	Reteti	Ficus wake
Lengopito	Dregea rubi	Lpupoi	Grewia vill	Rikoyo	Combretum acul
Lerai	Acacia hock,seya,horr	Ltapes	Acacia tort	Rogei	Tamarindus indi
Lerenday	Capparis fasc	Ltilemani	Euphorbia cune	Sagorogurri	Albizia gumm
Lesayet	Withania somn	Ltukumi	Tennantia sen	Sagumai	Maytenus buch
Letwalan	Crotalaria fasc	Ltulelei	Solanum inca		Maytenus hete
Lgering	Olinia roch	Ltungai	Vepris samb	Saigurugui	Cassia long
Lgotoi	Diospyros scab	Luai	Acacia drep	Sakotei	Salvadora pers
Lguburtu	Euphorbia engl	Lugugutt	Solanecia mann	Sanatoi	Cassia long
Limoro	Dovyalis abys	Luisugi	Zanthoxylum usam	Sangaretei	Thylacium afri
Limuria	Carissaedul	Lukukut	Hunteria zeyl	Santaiti	Berchemia disc
Ljakwal	Acacia etba	Lukuyinei	Heteromorpha trif	Sanunguri	Scutia myrt
Lkinoi	Lannea alat	Lukwalan	Crotalaria lach	Sanungurr	Chaetacme aris
Lkirikiri	Acacia brev	Lumi	Maerua cras	Sapani	Duosperma erem
Lkorbobot	Euphorbia sche	Makutukuti	Clerodendron myri	Sarai	Balanites pedi
Llaramunyo	Toddalia asia	Malan	Pavetta abys	Sarei	Balanites rotu
Lmaiyeen	Hippocratea afri	Mamiraa	Prunus afri	Sasaante	Dracaena steu
Lmantume	Cordia oval	Marakuet	Cathaedul	Seebit	Landolphia buch
Lmasei	Tarenna grav	Maramarui	Croton mega	Seepei	Ficus nata
Lmuchomi	Leucas tome	Mbipia	Melia volk	Seketeta	Myrsine afri
Lmuki	Newtonia hild	Mdaka	Ruttya frut	Senetoi	Cassia sing
Lmunyimunyi	Acacia horr	Mnorotshi	Trimeria gran	Serai	Euphorbia sp.
Lmusigioi	Rhus nata	Modonkorit	Erythrina mela	Sesiai	Acacia elat
Lngaboli	Ficus sur	Mondurmi	Ochna insc	Siati	Alchornea frut
	Ficus syco	Morijoi	Gnidia glau	Sigiet	Leucas glab
			Acokanthera frie	Sigiet	Clematis brac
				Sigir	Indigofera arr
				Sikawei	Solanum arun

Sinoni	Lippia ukam	Mkuba-adasti	Tricalysia oval	Dalyet	Acacia albi
Siteti	Grewia bico	Mkufu	Vitex momb	Delya	Acacia hock
	Grewia tric	Mogodonya	Flacourtia indi	Duyet	Acacia albi
Sogore	Albizia gumm	Mshenzi	Brachylaena huil	Ematso	Acacia laha
Sokodume	Kedrostis gije	Muka	Encephalartos hild	Epelong	Trimeria gran
Songoroi	Brucea anti	Mukakinya-kusia	Deinbollia borb	Ewondet	Polyscias kiku
Sulube	Abutilon hirt	Mukasibila	Vismia arie	Gabulwa	Gardenia tern
	Pavonia uren	Mukishati	Ochna moss	Gogorwo	Maesa lanc
	Hibiscus caly	Mukurcha	Memecylon mour	Kabaandet	Hymenodyction flor
Sunoni	Lippia java	Muranyani	Combretum schu		
Tarakwa	Juniperus proc	Orda	Ficus sur	Kaborte	Erythrina abys
Torau magifi	Vernonia cine	Ramicha	Afzelia quan	Kamet	Hymenodyction flor
		Roka	Tamarindus indi		
	SANYA	Sakucha	Cynometra webb	Kamolwet	Vangueria mada
		Sargorsa	Combretum buty	Kapsigaga	Erica exce
Ade	Salvadora pers	Sasacha	Polysphaeria parv		Erica trim
Auwaki	Hyphaene comp	Sasatcha	Cremastra trif	Kaptalonget	Olinia roch
Awandide	Elaeodendron aqu	Shiyole	Uvaria acum	Kaptebema	Macaranga kili
Babala	Notobuxus obtu	Shoshobli	Dialium orie	Katagi	Ziziphus abys
Badan	Balanites wils	Shungururu	Grewia plag	Katetalum	Sclerocarya birr
Balacha	Encephalartos hild	Shusholwe	Dialium orie	Kembel	Combretum moll
Bombo	Vangueria infa	Sibile	Hymenaea verr	Kibiago	Maesa lanc
Bora	Oldfieldia soma	Soduluwage	Drypetes nata	Kimesan	Oncoba spin
Bubuyu	Haplocoelum inop	Sorsor	Brachystegia spic	Kimet	Acacia laha
Dane	Thespesia dani	Wasamara	Cassia afro	Kimoiwet	Heteromorpha trif
Danisa	Thespesia dani	Watho	Brachylaena huil	Kipsagiriet	Bersama abys
Dewakiri	Heinsia crin			Kipteldet	Xymalos mono
Doka	Manilkara sans		SEBEI	Kipumetet	Ekebergia cape
Dumbel	Gardenia volk			Kobortet	Maesa lanc
Finyangurura	Acridocarpus zanz	Aiuandet	Senna pete	Koimbondet	Salix subs
Garse	Dobera glab	Aramaatet	Prunus afri	Kwalet	Schefflera volk
Gora	Acacia aden	Artet	Agauria abys	Kwaluk	Polyscias kiku
Gurura	Carissa edul	Asenuet	Combretum coll	Kwanget	Maytenus obsc
Hadisa	Ludia maur	Baragaya	Trichocladus elli	Kwelet	Schefflera volk
Haruru	Grewia plag	Beriakaya	Trichocladus elli	Kweruwak	Hymenodyction flor
Ilikanyatcha	Maytenus putt	Bionwa	Allophylus abys		
Itikindu	Phoenix recl	Bionwet	Lepidotrichilia volk	Kwonget	Maytenus unda
Karari	Sterculia afri			Lamed	Polyscias kiku
Keireteta	Croton tala	Borowa	Dombeya rotu	Lemeyuet	Syzygium cord
Keirtets	Croton pseu	Bumet	Ekebergia cape	Letwa	Scutia myrt
Kikucha	Toddalia asia	Bwonget	Faurea spp.	Lokotono	Ochna hols
Korubo	Terminalia prun	Chebakwa	Neoboutonia macr	Luliondet	Aningeria adol
Kuraga	Manilkara sulc	Chebawya	Senna pete	Lulyo	Aningeria adol
Malalai	Populus ilic	Chemetio	Maytenus sene	Maakwet	Faurea spp.
Mbunduki	Bourreria peti	Chemoiywa	Maytenus unda	Marambajet	Acacia abys
Metsengwa	Elaeis guin	Chemotio	Maytenus unda	Mashembut	Entada lept
Mfududu	Vitex momb	Chemwororia	Pittosporum viri	Mastet	Celtis afri
Mgojama	Rothmannia macr	Chepkirikorok	Agauria abys	Mastitet	Celtis afri
Mkingili	Dichrostachys cine	Chepkwatet	Maytenus obsc	Mokyobelyo	Steganotaenia aral
		Cheptua	Diospyros abys	Mololosti	Dracaena steu
Mkochopa	Lonchocarpus buss	Chiesamiss	Crateva adan	Moniet	Pavetta elli
		Chorua	Nuxia cong	Morgenet	Bersama abys

Mosididiet	Celtis afri	Abak	Acacia horr	Chiak	Acacia sie
Moyawaruwa	Rhamnus prin		Acacia tort	Chieh	Boscia ang
Muapaarua	Rhamnus prin	Abar-moq	Maerua decu	Dabell	young Hyphaene comp
Mugengere	Cordia afri	Adad geri	Acacia con	Da'bi	Grewia mol
Mugunguret	Cordia afri	Adad geri	Acacia sene	Dabarrik	Commiphora edu
Mundariluluwet	Dovyalis abys	Adad giri	Acacia cond	Dabba'un'un	Commiphora afr
Mundililwet	Dovyalis abys	Adad guduud	Acacia sene	Dalol	Plectranthus ign
Murosuet	Nuxia cong	Ade	Salvadora pers	Damaja	Commiphora cand
Mutenywa	Ximenia amer	Afgub	Opilia camp	Damak	Grewia ten
Mutonywo	Ximenia amer	Adhei	Salvadora pers	Dana	Euphorbia tiru
Ndiniet	Acacia hock	Allan	Lawsonia iner	Dananiu	Sclerocarya gil
Njowaruwa	Rhus rusp		Terminalia brev	Danu	Commiphora ros
	Rhus vulg	Alol	Phoenix recl	Danu sagar	Commiphora ros
Oromoti	Prunus afri	Amaressa	Suaeda mono	Daraka	Indigofera arr
Pionyet	Allophylus abys	Amboya	Euphorbia cal	Darkhen	Euphorbia can
Sabuldet	Stoebe kili	Anjir	Euphorbia sch	Darkhen	Euphorbia rob
Sakiandet	Piliostigma thon	Anthri	Lannea tri	Darkiyah	Boscia cor
Saptet	Podocarpus falc	Arabi sofarra	Ficus cap	Darran-ad	Salsola den
Segar	Ilex miti	Arba	Adenium obe	Debhi	Grewia bic, plag, stuh
Segersa	Pittosporum viri	Asel	Pappea cap	Deen	Berchemia disc
Sengewaw	Gnidia glau	Ayabadeo	Spirostachys ven	Deidei	Dalbergia ere
Seruondet	Casaeria batt	Baba	Melia vol	Deka-bonati	Grewia lila
Seruwa	Casaeria batt	Bakal	Delonix bac	Dekha	Grewia tena
Sesindot	Stoebe kili	Bakha	Jatropha stu	Den	Lannea sch
Shiendet	Euclea divi	Balambal	Ficus pop	Dhamag	Grewia tem
Sigirwo	Bersama abys	Bardah	Ficus syco	Dholol	Calyptrorhiza tait
Simotuet	Ficus nata	Barr	Hyphaene com	Dibiribiri	Podocarpus fal
Singorowet	Gnidia lamp	Barribote	Ipomoea don	Dibirkh	Commiphora boiv
Sitatet	Podocarpus lati	Bebah	Boswellia mic	Diddin	Commiphora myr
Situtua	Rapanea mela	Bebhi	Grewia dens	Didonle	Adenia ven
Sokoruet	Hagenia abys	Berd	Ficus wak	Digh'darr	Jatropha dic
Sunwa	Elaeodendron buch	Berde	Ficus glu	Dighdar ghanet	Dichrostachys cin
Tabinguet	Vernonia auri	Bigusa	Ficus vas	Dighdar yer	Jatropha pel
Tegendet	Arundinaria alpi	Bil-el	Steganotaenia ara	Dimole	Euphorbia cune
Tekandet	Acanthus emin	Bilil mado	Aacia mell	Dirandra	Euphorbia cun
Tombolokwa	Dodonaea angu	Biiris	Acacia nilo	Ditar	Dichrostachys cin
Torokio	Afrocrania volk	Bilel	Terminalia bro	Djadjallah	Premna resi
	Juniperus proc	Biribiriti	Acacia mel	Doddin	Commiphora myr
Tungururiet	Flacourtia indi	Birribote	Podocarpus lat	Dofar ghot	Kirkia tenu
Usuet	Euclea divi	Bisakh, Bisiq	Ipomoea don	Domader	Bottegoa ins
Uswa	Euclea divi	Borant	Terminalia orb	Dosi	Boscia tom
		Bukorola	Moringa bor	D'rander	Euphorbia cun
		Burus	Kigelia afri	Dugh-dukhul	Cadaba gla
		Bura	Turraea fis	Dumaale	Euphorbia cun
		Burbur	Erythrina mel	Dumaderi	Cassia abb
		Burra	Carphalea gla	Dume	Maerua cras
		Chabhi	Acacia elat	Dumeg	Grewia tem
		Chanah	Cissus aph	Dumei	Cadaba fari
			Lecaniodiscus frax		Maerua trip
		Chan-farod	Garcinia livi		Calyptrorhiza som
		Cherin	Acacia sie	Dunn	

SOMALI

Numerous additions have been included with permission of Mr. Norman Gachathi, from his "checklist of the indigenous trees ... of Bura, Tana River District" (1987); and many others have been taken from an unpublished study by Mr. Dennis Herlocker, also with his permission.

Dur	Tamarix aph	Goomr	Acacia stu	Himir	Tarennna gra
Dur	Tamarix nil	Gora	Pentas par	Hirin	Asepalum eri
Durte	Salsola dend		Caesalpinia trot	Hodhe	Commiphora kua
Dusimaj	Lawsonia ine		Capparis fasc, sepi	Hodhei	Commiphora sen
Dusiya	Dalbergia com	Gossai	Givotia gos	Horgoi	Commiphorasch
Duyaa	Dalbergia com	Gradha gradha	Premna res	Hungul	Commiphora ten
Eddih-chabel	Harrisonia abys	Gub	Ziziphus mau	Il as	Ruttya fru
Eddi shebei	Combretum acu	Gududo	Lawsonia ine	Ilk'aless	Commiphora bor
Elan	Lawsonia micr	Gulu	Acacia edg	Ilka adeis	Rhus nat
Ethad	Acacia hamu, sene	Gummr	Acacia nub	Ilkabata	Cadaba rusp
Ethad-geri	Acacia sene	Gummr adi	Acacia seya	Jajaneh	Acacia pao
Fada geli	Pyrenacantha mal	Gummr jeerin	Acacia hor	Jaqqale	Premna resi
Falay-wajol	Acacia seya	Gummr saur	Acacia pao	J'nau	Commiphora cam
Faraganga	Acacia bre	Gundad	Commiphora cor	Jenan	Commiphora ros
Feria	Acacia sen	Guraa	Caesalpinia erl	Jenau	Commiphora cam
Frim	Dialium ori		Acacia tort	Jerin	Acacia pao
Fulai	Acacia zan	Gurb	Clerodendrum eri	Jerso	Olea eur
Fulla	Acacia seyal	Gurbi	Asepalum eri	Jikh	Acacia seyal
Fullai	Acacia zan	Habasho	Albizia anth	Jikh	Acacia zan
Furgorri	Acacia bre	Hades	Vepris eug	Kalalui	Euphorbia tes
Furgurgur	Caesalpinia tro	Hadesa	Strychnos hen	Kalanqal	Boscia cor
Gaba heriq	Commiphora bor	Haduna	Moringa bor	Kalaula	Euphorbia brev
Gadu	Cadaba mir	Haggr	Commiphora	Kamasha	Grewia vill
Gajibu	Momordica spi		com,pseu, bal	Kamora	Phyllanthus soma
Galgnal	Cadaba far	Haggr ad	Commiphora hol	Kana	Commiphora edu
Gali	Momordica spi	Haggr medau	Commiphora hil	Kaphan	Thespesia dani
Galol	Acacia bus	Haggr sowar	Commiphora oga	Karihthi	Solanum ren
Gamar	Acacia stu	Hainya	Wrightia dem	Karir	Solanum inca
Garanre	Sterculia afr	Haiya	Wrightia dem	Karro	Gardenia fio
Garari	Sterculia ste	Haiyah-badod	Spirostachys vene	Kashinaada	Croton men
Garas	Dobera gla, lor	Hajola	Commiphora conf	Kat	Catha edu
Garta	Carphalea gla	Halbun	Jatropha elle,spic	Katkata	Premna res
Ged hamu	Lippia car	Haldid	Hildebrandtia afr	Khalanghal	Boscia cori
Ged mured	Grewia mol	Hamaloshi	Maerua ang	Khansa	Acacia ref
Gedh chala	Capparis sep	Hamar	Tamarindus ind	Kharandri	Sterculia afr
Gedimariti	Psychotria kir	Hamesa	Commiphora cam	Kichua	Catunaregam nilo
Gedoa	Jatropha par	Hammes-sagara	Commiphora afri	Kish	Cadaba gil
Gel Fijiss	Senna bac	Hamr	Ziziphus ham	Kitole	Strychnos decu
Gelai	Tarennna gra	Hanan	Acacia sene	Kobagor	Entada lep
Gethugethiss	Spirostachys ven	Hanshanli	Grewai ten	Kobahan	Thespesia dan
Ghalangai	Boscia cor	Hanshilo	Grewia ten	Kobesh	Lannea mal
Gilila	Commiphora kua	Hanya	Wrightia dem	Kodi	Caesalpinia eri
Gissrep	Albizia ama	Harar	Terminalia brow	Kohkon	Combretum her
Gitkalat	Ricinus comm	Hareri	Terminalia pol	Kolati	Diospyros cor,
Giyapp	Clerodendrum eri	Hareri	Terminalia pru		mes
Gobole	Croton dic	Hareri	Terminalia spi		Mimusops obtu
Gochan-gol	Adenium obes	Hareri	Terminalia bro	Kordobo	Terminalia prun
Godi	Parkinsonia sci	Hareri mado	Maerua den	Korobo	Hildebrandtia obc
Gollol	Acacia buss	Hargoi	Commiphora sch	Kosai	Givotia gosa
Goma-gumuh	Diospyros waj	Hayah-hayah	Wrightia dema	Kosai-ye-iriad	Cephalocroton cor
Gomarr	Acacia tur	Helta	Commiphora lon	Kriri	Solanum aru
Gombor-lik	Capparis tom	Herin	Hildebrandtia afr	Kullan	Balanites rot,ped

Kummasha	Grewia vil	Orgab	Tennantia senn	Yak	Adansonia digi
Kumuhde	Lannea alat	Rakhai	Tamarindus indi	Yuub	Gyrocarpus hab
Kura	Acacia tor	Reidep	Albizia ant		
Kuru	Commiphora sam	Reidup	Albizia ant	STANDARD/TRADE NAMES	
Kusu kusu	Lawsonia ine	Righ	Acacia refi	Acacia, apple ring	Acacia albi
Lanen	Acacia mel	Rokess	Combretum mol	Acacia, black-galled	Acacia drep
Lanjid	Sesamothamnus bus	Ross	Commiphora dan	Acacia, falcon's claw	Acacia poly
		Rubiss	Thunbergia gue	Acacia, white-galled	Acacia seya
Lebbi wandit	Mundulea ser	Rubissa	Ipomoea tri	Adina	Breonadia micr
Lebier	Sesbania quad	Saban saida	Platycephium		
Lebhi	Delonix ela		voe	African blackwood	Dalbergia mela
Lebi sauwer	Ormocarpum kir	Sable	Dicraeopetalum,	African celtis	Celtis mild
Lebi sauwer	Ormocarpum mur		sti	African ebony	Dalbergia mela
Loiloi	Solanum mel	Salel-maah	Sesamothamnus		Diospyros mesp
Madarau	Ximenia ame		riv	African fan palm	Borassus aeth
Madarud	Ximenia ame	Sarba	Adenium obe	African laburnum	Cassia afro
Maded	Cordia ner	Sareda	Bourreria lyc	African mahogany	Entandophragma
Magafur	Boswellia neg	Sarega	Bourreria sp. A		ango
Malmal	Commiphora ell	Sarin	Duosperma ere	African pencil cedar	Juniperus proc
Mandaruk	Maytenus	Sarmunjif	Acacia tur	African satinwood	Zanthoxylum gill
	hete,sene	Sauwar	Jatropha pel	Afzelia	Afzelia quan
Mardafa	Borassus aeth	Serman	Acacia hor	Akasinga	Celtis afri
Marefu	Boswellia hil	Shawla	Adenia ven	Almond, bastard	Terminalia cata
Marer	Cordia quer	Sholole	Uvaria lept	Almond, Indian	Terminalia cata
Marer girgir	Cordia goet,mono	Sirkh	Populus ilic	Ambatch	Aeschynomene
Marer gom	Cordia ova	Sirso	Combretum her		elap
Marer-khoh	Cordia quer	Solo	Calyptrorhiza som	Antiaris	Antiaris toxi
Marodi makaran	Ormocarpum sp.	Sori	Commiphora dan	Apple ring acacia	Acacia albi
Massar jabbis	Terminalia par	Sureda	Turraea bar	Apple, sodom	Solanum inca
Matha madal	Gardenia vol	Surur	Lycium eur	Apple, white star	Chrysophyllum
Mau	Moringa ste	Tebi	Grewia bic		albi
Mawah	Moringa ste,bor	Tenian	Xerophyta spe	Apple, wild custard	Annona sene
Medang	Momordica spi	Tobi	Ipomoea spa	Arabian coffee	Coffea arab
Megag	Boscia min	Tukh	Cadaba far	Bamboo, mountain	Arundinaria alpi
Mejaba	Ochna ine	Tuger, Twer	Acacia nil	Banana, wild	Ensete vent
Melmel	Commiphora myr	Uba	Adenium obe	Baobab	Adansonia digi
Meredis	Anisotes par	Urbi	Ipomoea cic	Bark cloth fig	Ficus nata
Meredis	Anisotes tan	Wa anri	Lannea ala,tri	Bastard almond	Terminalia cata
Mirafur	Boswellia riv	Wachab	Phyllanthus som	Bastard wild rubber	Funtumia afri
Molmol	Commiphora myr	Wadad	Cussonia hol	Bean tree, lucky	Afzelia quan
Mugle	Boswellia mic	Wangasa	Commiphora sar	Bean, mahogany	Afzelia quan
Munyangatta	Sterculia app	Wankhri	Lannea tri	Black plum	Vitex doni
Murfur madobe	Boswellia neg	Warab reb	Commiphora ell	Black-galled acacia	Acacia drep
Murie-bonati	Grewia temb	Warab reb	Commiphora hab	Blackwood, African	Dalbergia mela
Muriye	Grewia ten	Warab reb	Commiphora kua	Bombax, East African	Bombax rho
Nakvilla	Harmsia sid	Warab reb	Commiphora swy	Borassus palm	Borassus aeth
Natanna	Canthium pse	Waradhe	Manilkara moch	Brown olive	Olea euro
Nitatumbe	Erythrococca bon	Washekara	Commiphora swy	Buffalo thorn	Ziziphus mucr
Ohia	Maerua den	Weil haren	Ipomoea cic	Butterfly bush	Clerodendrum
	Thylachium thom	Weil wodha	Ipomoea cic		myri
Ohia-sagara	Maerus decu	Wera	Olea eur	Cabbage tree	Anthocleista gran
Ohob	Grewia pen	Xobole	Croton pse		Anthocleista voge

Camel's foot	Piliostigma thon	Fern leaf tree	Filicium deci	Miraa	Catha edul
Camphor	Ocotea usam	Fern, tree	Cyathea spp.	Missanda	Erythrophloeum suav
Camphorwood	Ocotea usam	Fever tree	Acacia stuh	Mkalya	Zanha afri
Cape chestnut	Calodendrum cape		Acacia xant	Mkandaa	Ceriops taga
Casaeria	Casaeria batt	Fig tree	Ficus spp.	Mkoko	Rhizophora mucr
Cashewnut	Anacardium occi	Fig, bark cloth	Ficus nata	Mlilana	Sonneratia alba
Castor oil plant	Ricinus comm	Finger euphorbia	Euphorbia tiru	Mountain bamboo	Arundinaria alpi
Cedar	Juniperus proc	Flame of the forest	Spathodea camp	Mshiwi	Syzygium guin
Celtis, African	Celtis mild	Flame, nandi	Spathodea camp	Mtandarusi	Hymenaea verr
Chestnut, cape	Calodendrum cape	Gedu nohor	Entandophragma ango	Mtanga	Albizia vers
Chinese lantern tree	Dichrostachys cine	Giant heath	Erica spp.	Muchorowe	Nuxia cong
Coast whistling thorn	Acacia zanz	Giant St. John's wort	Hypericum spp.	Mueri	Prunus afri
Coffee, arabian	Coffea arab	Giant yellow mulberry	Myrianthus hols	Mugavu	Albizia cori
Coffee, nandi	Coffea euge			Mugucua	Zanthoxylum usam
Copal tree, gum	Hymenaea verr	Golden dewdrop	Duranta repe		
Cordyla	Cordyla afri	Greenheart, East African	Warburgia ugan	Mugumu	Ficus nata, thon
Custard apple, wild	Annona sene			Mugwi	Trilepisium mada
Cycad	Cycas thua	Gum arabic, Sudan	Acacia sene	Muhorro	Premna ango
	Encephalartos spp.	Gum copal tree	Hymenaea verr	Muhugu	Brachylaena huil
Date palm, wild	Phoenix recl	Hagenia	Hagenia abys	Muhuhu	Brachylaena huil
Date, desert	Balanites aegy	Heath, giant	Erica spp.	Muia	Bruguiera gymm
Dead sea fruit	Calotropis proc	Henna	Lawsonia iner		
Deleb palm	Borassus aeth	Horseradish tree	Moringa olei	Mukebu	Cordia mill
Desert date	Balanites aegy	Indian almond	Terminalia cata	Mukeo	Dombeya torr
Desert rose	Adenium obes	Iroko	Milicia exce	Mukeu	Dombeya torr
Dewdrop, golden	Duranta repe	Iroko, false	Antiaris toxi	Mukorombosi	Afrocrania volk
Doum palm	Hyphaene comp	Kababu	Acacia albi	Mukumari	Cordia afri
East African bombax	Bombax rhod	Kakamega stinkwood	Celtis gomp	Mulberry, East African	Morus meso
East African camphorwood	Ocotea usam	Kenya fuchsia	Halleria luci	Mulberry, giant yellow	Myrianthus hols
East African greenheart	Warbugia ugan	Khat	Catha edul		
East African laburnum	Calpurnia aure	Laburnum, African	Cassia afro	Mululu	Chrysophyllum albi
		Lantern tree, chinese	Dichrostachys cine	Muna	Aningeria adol
East African mulberry	Morus meso	Lemon wood	Xymalos mono	Munderendu	Teclea nobi
East African Olive	Olea cape (hoch)	Lion's claw	Crotalaria agat		Teclea simp
East African sandalwood	Osyris lanc	Loliondo	Olea cape (welw)		Teclea trich
East African yellowwood	Podocarpus falc	Lucky bean tree	Afzelia quan	Murumu	Fagaropsis ango
	Podocarpus lati	Ludulio	Manilkara butu	Musa	Celtis gomp
		Lusui	Diospyros abys	Mushami	Allophylus abys
		Macaranga	Macaranga cong, kili	Musine	Croton mega
Ebony, African	Dalbergia mela			Musizi	Maesopsis emin
	Diospyros mesp	Mafu	Fagaropsis ango	Musodo	Ricinodendrum heud
Ekebergia	Ekebergia cape	Mahogany bean	Afzelia quan		
Elgon olive	Olea cape (welw)	Mahogany, African	Entandophragma ango	Mutati	Polyscias kiku
Erimado	Ricinodendron heud			Mutere	Maesopsis emin
		Mangrove	various; see p.34	Muthaiti	Cassipourea malo
Euphorbia, finger	Euphorbia tiru	Mchu	Avicennia mari	Mvule, false	Antiaris toxi
Falcon's claw acacia	Acacia poly	Mdadarika	Newtonia pauc	Mvuli	Milicia exce
False Iroko	Antiaris toxi	Meru oak	Vitex keni	Myinja	Fagaropsis ango
False Mvule	Antiaris toxi	Mgude	Sterculia appe	Myrrh tree	Commiphora myrr
Fan palm, African	Borassus aeth	Mgurure	Combretum schu	Naivasha thorn	Acacia xant

Namanuka	Celtis gomp	Red stinkwood	Prunus afri	Wild custard apple	Annona sene
Nandi coffee	Coffea euge	Red thorn	Acacia laha	Wild date palm	Phoenix recl
Nandi flame	Spathodea camp	Rose, desert	Adenium obes	Wild oil palm	Elaeis guin
Nazingu	Meyna tetr	Rubber, bastard wild	Funtumia afri	Wild olive	Olea euro
Nettle tree, stinging	Obetia radu	Sandalwood, East African	Osyris	Wild plum	Ximenia amer
Newtonia	Newtonia buch		abys	Wild rubber, bastard	Funtumia afri
Nkoba	Lovoa swyn	Sandpaper tree	Cordia oval	Wild soursop	Annona sene
Nkunya	Manilkara butu	Satinwood, African	Zanthoxylum gill	Willow	Salix subs
Nongo	Albizia glab	Sausage tree	Kigelia afri	Yellowwood, East African	Podo-
	Albizia gran	Screw pine	Pandanus kirk		carpus falc
	Albizia zygi		Pandanus raba		Podocarpus lati
	Dichrostachys	She oak	Casuarina equi		
	cine	Shittim wood	Acacia seya		
Nzingu	Mitragyna rubr	Sodom apple	Solanum inca		
Oak, maru	Vitex keni	Somali tea	Catha edul		
Oak, she	Casuarina equi	Soursop, wild	Annona sene		
Oil palm, wild	Elaeis guin	Spiciformis	Brachystegia spic		
Olive, brown	Olea euro	St. John's wort, giant	Hypericum spp.		
Olive, East African	Olea cape (hoch)	Star apple, white	Chrysophyllum		
Olive, Elgon	Olea cape (welw)		albi		
Olive, wild	Olea euro	Stinging nettle tree	Obetia radu		
Omulera	Albizia gumm	Stinkwood, Kakamega	Celtis gomp		
Ordeal tree	Erythrophloeum	Stinkwood, red	Prunus afri		
	suav	Strombosia	Strombosia sche		
Osan	Aningeria alti	Sudan gum arabic	Acacia sene		
Palm, African fan	Borassus aeth	Sugarbush	Protea gagu		
Palm, borassus	Borassus aeth	Tamarind	Tamarindus indi		
Palm, deleb	Borassus aeth	Tambootie	Spirostachys afri		
Palm, doum	Hyphaene comp	Tana River poplar	Populus ilic		
Palm, raffia	Raphia fari	Terminalia	Terminalia spp.		
Palm, Raphia	Raphia fari	Thorn, buffalo	Ziziphus mucr		
Palm, wild date	Phoenix recl	Thorn, coast whistling	Acacia zanz		
Palm, wild oil	Elaeis guin	Thorn, Naivasha	Acacia xant		
Pear wood	Apodytes dimi	Thorn, red	Acacia laha		
Pear, white	Apodytes dimi	Thorn, wait-a-bit	Acacia brev		
Pencil cedar, African	Juniperus proc	Thorn, whistling	Acacia drep		
Pigeonberry	Duranta repe		Acacia seya		
Pillarwood	Cassipourea malo	Thorn, white	Acacia hock		
Pine, screw	Pandanus kirk	Toothbrush tree	Salvadora pers		
	Pandanus raba	Tree fern	Cyathea spp.		
Pine, whistling	Casuarina equi	Violet tree	Securidaca long		
Plum, black	Vitex doni	Vitex	Vitex doni, keni		
Plum, wild	Ximenia amer	Wait-a-bit thorn	Acacia brev		
Podo	Podocarpus falc	Whistling pine	Casuarina equi		
	Podocarpus lati	Whistling thorn	Acacia drep		
	Podocarpus usam		Acacia seya		
Poker tree, red hot	Erythrina abys	White pear	Apodytes dimi		
Poplar, Tana River	Populus ilic	White star apple	Chrysophyllum		
Raffia palm	Raphia fari		albi		
Rapanea	Rapanea mela	White thorn	Acacia hock		
Raphia palm	Raphia fari	White-galled acacia	Acacia seya		
Red hot poker tree	Erythrina abys	Wild banana	Ensete vent		

Mbani	Trimeria gran	Mchikichi	Elaeis guin	Mganda-simba	Combretum cons
Mbaraka	Cassia abbr	Mchonga-nyumba	Grandidiera boiv		Monodora gran
	Senna pete	Mchongoma	Commiphora lind		Uvaria acum
	Senna sing		Euphorbia cune		Uvaria unci
Mbaraka mkuu	Erythrophloeum suav	Mchu	Avicennia mari	Mgandama	Drypetes nata
Mbaraka mtoto	Cassia afro	Mchumbi	Haplocoelum inop	Mganga-luo	Schlechterina mito
Mbauri	Oldfieldia soma		Haplocoelum trig	Mgarara	Canavalia rose
Mbawa	Gyrocarpus amer	Mchunga-mahana	Terminalia boiv	Mgegi	Vitex ferr
	Macaranga cape	Mdaa	Diospyros usam	Mgoa	Mascarenhasia arbo
Mbohoya	Ancylobotrys pete	Mdaa-mwitu	Diospyros abys		
	Ancylobotrys tayl		Diospyros usam	Mgomberree	Erythrococca kirk
	Dictyophleba luci	Mdhahabu	Euclea nata	Mgongolo	Cissus inte
Mbomba	Fernandoa magn	Mdimu-mwitu	Notobuxus obtu		Rhoicissus revo
Mbomba-maji	Cussonia zimm	Suregada zanz		Mgoza	Sterculia afri
Mbombaro	Terminalia samb	Mdundungoma	Erythrina saci	Mguku	Monanthotaxis forn
Mbombo	Tabernaemontana eleg	Mdunga mdeewe	Maytenus hete		Salacia eleg
		Mdunga-ndewe	Azima tetr		Salacia mada
			Maytenus sene		Acacia etba
Mbongolo	Cordia subc	Mfifiyo	Heinsia crin	Mgunga	Acacia nilo
Mbuba	Strophanthus cour	Mfinyofinyo	Feretia apod		Acacia robu
	Strophanthus pete	Mfiri-mwitu	Rhynchosia cong		Acacia sene
Mbugo-lwala	Rhopalopilua umb	Mfiyfiyo	Chazaliella abru		Acacia seya
Mbugu	Paullinia pinn	Mfiyofiyio	Heinsia zanz		Acacia stuh
Mbugu mwiba	Smilax ance		Rytigynia micr		Acacia tort
Mbugu-bafe	Strychnos pang	Mfiyofiyio-dume	Tinnea aeth		Acacia sieb
	Triaspis moza	Mforfor dume	Pentas buss	Mgunga kuu	Rhopalopilua umbe
Mbugu-nyama	Cissus quad	Mfudzofudzo	Tarenna litt	Mgunga-lungu	Vismia orie
Mbunduki	Bourreria litt	Mfufu	Vitex payo		Monanthotaxis forn
	Bourreria peti	Mfuidzo	Tarenna grav	Mguwe	Dalbergia vacc
Mbunduki-dume	Ehretia amoe	Mfukufuku	Grewia bico	Mgweni	Zanthoxylum chal
Mbungu	Saba como		Grewia plag		Elaeis guin
Mbura	Harungana mada	Mfunda	Cynometra suah	Mikwaju	Warburgia stuh
Mbuyu	Adansonia digi		Cynometra webb	Mjafari	Dodonaea spp.
Mbwale	Cordia soma	Mfunda-mweupe	Craibia brev	Mjenga	Pemphis acid
	Dombeya prae		Nectaropetalum kaes	Mkaa	Pandanus kirk
Mchacha	Alchornea frut		Stadmannia oppo	Mkaa-pwani	Tarchonanthus camp
	Allophylus perv	Mfundu	Vitex doni		Phyllanthus welw
	Mallotus oppo		Vitex momb	Mkadi	Clerodendrum acer
Mchambaro	Terminalia kili	Mfundu maji	Sterculia appe	Mkalambati	Ceriops taga
Mchambi	Pachystela vert	Mfune	Haplocoelum inop		Rinorea arbo
Mchani	Albizia glab	Mfungu-tanzu	Haplocoelum trig	Mkamba-vitu	Lumnitzera race
Mchani-mbao	Albizia gumm		Colubrina asia	Mkambe	Ochna moss
Mchani-mbawe	Albizia adia	Mfu	Canthium kili		Ochna thom
Mchani-ndovu	Albizia vers	Mfupapu	Canthium momb	Mkandaa	Anacardium occi
Mchapa	Borassus aeth		Oxyanthus zang	Mkandaa mwitu	Psydrax schi
Mcheji-ndume	Mainilakara sulc		Psydrax faul	Mkandaa-mwitu	Phyllanthus muel
Mchekecheke	Crotalaria axil		Pyrostria bibr		Phyllanthus reti
	Piliostigma thon		Teclea tric	Mkanju	
Mchesi	Cremaspora trif	Mfuwahe	Ludia maur	Mkarambati	
	Lamprothamnus zang	Mfuwate	Mimusops frut	Mkasiri	
	Polysphaeria parv	Mgamba-kapee	Entada lept		
		Mgambari			

Mkata-kimo	Memecylon mour	Mkumbu	Phyllanthus muel	Mngambo	Manilkara sans
	Memecylon verr	Mkunapaa	Croton pseu	Mngambo-mwitu	Pycnocomia litt
Mkatakimo	Eugenia taxon F	Mkunazi	Ziziphus maur	Mngongo	Sclerocarya birr
Mkatu	Synaptolepis kirk		Ziziphus mucr	Mnguvi	Mimusops frut
Mkatu-mkubwa	Byrsocarpus boiv	Mkunde	Antiaris toxi	Mnienzi	Parkia fili
Mkechere	Ficus ling		Parkia fili	Mnio	Dregea rubi
Mkele	Caesalpinia bond	Mkungu	Terminalia cata	Mnofu wa kuku	Uvariendendron
Mkelekele	Erythrophloeum suav	Mkungu-wazimu	Inhambanella henr		kirk
		Mkunguma	Lecaniodiscus	Mnofuisakuko	Cola clav
Mkengewa	Acacia poly		frax	Mnuamaji	Ampelocissus afri
Mkete	Cordia subc		Sorindeia mada	Mnuka-vundo	Sophora inha
Mkia-ya-ngombe	Thunbergia hols	Mkunguni	Newtonia pauc	Mnuguwa-mwitu	Gnidia lati
Mkidori	Harrisonia abys	Mkunute	Rinorea ilic	Mnuo	Tristellateia afri
Mkilimo	Ochna thom	Mkupa	Dobera glab	Mnwamaji	Trichilia emet
Mkilimu	Deinbollia borb	Mkuro	Hugonia cast	Mnyamata	Pseudarthria hook
Mkilua	Mkilua frag	Mkurubuku	Derris trif	Mnyamvi	Ochna moss
Mkilua-mwitu	Asteranthe aste	Mkuyu	Ficus sur	Mnyanyuwa	Pemphis acid
Mkindu	Phoenix recl		Ficus syco	Mnyanza	Hymenaea verr
Mkingano	Dorstenia kame	Mkwakwa	Strychnos mada	Mnyao-nyao	Maytenus moss
Mkingiri	Dichrostachys cine	Mkwamba	Flueggia viro		Maytenus sene
		Mkwango	Encephalartos hild	Mnyonyore	Combretum cons
Mkitaji	Ormocarpum kirk	Mkwango	Tamarindus indi		Quisqualis litt
	Ormocarpum senn	Mkwe	Paramacrolubium	Mdogondo	Xeroderris stuh
Mkivule	Blighia unij		coer	Mosa-nyama	Ehretia bake
Mkoche	Hyphaene comp	Mlagakuku	Triainolepis afri	Moza nyama	Clerodendrum
Mkoko	Rhizophora mucr	Mlakwenzi	Pteleopsis tetr		capi
Mkokoa muhina	Lawsonia iner	Mlala	Hyphaene comp	Mpaga	Adenia glob
Mkokobara	Lamprothamnus zang	Mlala mbuzi	Maerua ango	Mpalafisi	Tetracera boiv
		Mlala-iko	Pseudobersama	Mpamba-mwitu	Gossypoides kirk
	Sideroxylon iner		moss	Mpanda-yongoo	Bourreria peti
Mkokoshi	Heritiera litt	Mlala-sungura	Diospyros cons	Mpapayi-mwitu	Cussonia zimm
Mkoma	Hyphaene comp	Mlalapili	Vernonia homi	Mpapura-chui	Capparis sepi
Mkoma-ya-pwani	Hyphaene cori	Mlambusi-mbage	Apodytes dimi	Mpekechu	Garcinia livi
Mkomafi	Xylocarpus gran	Mlambuzi	Memecylon frag	Mpelepele	Chassalia umbr
	Xylocarpus molu	Mlandege	Ficus ling		Pavetta sten
Mkomwe	Caesalpinia bond	Mlandenge	Trilepisium mada		Psychotria ambo
	Cordia subc	Mlanyuni	Hoslundia oppo		Schizogygia coff
Mkona-chuma	Allophylus rubi		Majidea zang	Mpepeta	Dialium orie
Mkone	Grewia bico		Trilepisium mada	Mpera-mwitu	Gardenia tome
	Grewia micr	Mlapaa	Polysphaeria parv		Memecylon sans
	Grewia plag	Milana	Sonneratia alba	Mperemende	Elaeodendron
	Ziziphus pube	Mlimbo-limbo	Mystroxydon aeth		schw
Mkone-chacha	Hirtella zanz	Mlindi-chozi	Ixora narc	Mpesi	Trema orie
Mkonga	Balanites wils	Mlishangwe	Allophylus rubi	Mpiga mruru	Acacia zanz
	Majidea zang		Rhus nata	Mpilipili	Newtonia pauc
Mkono-mume	Grewia dens		Vitellariopsis kirk	Mpingo	Dalbergia mele
Mku	Diospyros corn	Mliwa	Tarenna grav	Mpira	Landolphia kirk
Mkue	Julbernardia magn	Mlua	Mkilua frag	Mporojo	Albizia anth
Mkula-usiku	Clerodendrum hild	Mnafisi	Boscia cori	Mpupu	Canavalia cath
		Mnago	Manilkara moch	Mpweke	Diospyros squa
Mkumba-mbega	Albizia glab	Mnamai	Pleurostyliia afri	Mrihi	Brachystegia spic
Mkumba-ngombe	Canthium roby	Mnembe-nembe	Bridelia cath	Mrindazia	Sesbania bisp

Mrongo	Moringa olei	Mtela	Canavalia cath	Muamanda	Abutilon maur
Mrunza	Nesogordonia holt		Mukuna giga	Muanyiza	Haplocoelopsis afri
Mrusa pungu	Vernonia zanz	Mtengeji	Canthium glau		Ricinodendron
Msahala	Senna alex		Catunaregam infa	Muawa	heud
Msamburini	Harrisonia abys		Pachystigma lora		Monodora gran
Msamisami	Polysphaeria mult		Psydrax recu	Mubungo	Cordia soma
	Polysphaeria parv		Pyrostria phyl	Muchimba-kasa	Triumfetta rhom
Msamvia-wa-mwitu	Pachystela vert		Rytigynia micr	Muchokochore	Commiphora habe
Msanaka	Dracaena steu	Mteweji	Mainilakara sulc	Muchongoma	Commiphora lind
	Pandanus raba	Mti-chuma	Teclea tric		Scorodophloeos
Msapo	Encephalartos hild	Mti-mai	Pleurostylia afri	Mugodoma	fisc
Msarakana	Spirostachys afri	Mti-ndapo	Keetia guei		Cassipourea eury
	Spirostachys vene		Keetia veno	Mugome	Flacourtia indi
Msasa	Cordia oval		Keetia zanz	Mugovigovi	Combretum schu
Msazuzi	Antidesma veno	Mti-sumu	Rauvolfia momb	Mugurure	Lasiodiscus mild
Msefu	Sterculia appe		Stereospermum	Muholoho	Thespesia dani
Mshindimaji	Dracaena usam		kunt	Muhowe	Brachylaena huil
Mshunduzi	Rinorea elli	Mtimeupe	Holarrhena febr	Muhuhu	Bruguiera gymn
Msigande	Opilia amen	Mtindapo	Carpolobia goet	Muia	Vangueria infa
	Psychotria laur	Mtindaziwa	Quisqualis litt	Muiro	Julbernardia magn
Msikundazi	Heritiera litt	Mtisumu	Fernandoa magn	Mukuwa	Ficus sur
Msinduzi	Croton tala	Mtomoko-mwitu	Annona sene	Mukuyu	Ficus syco
Msokote	Grewia caly	Mtomondo	Barringtonia race		Ochna holt
	Grewia ecta	Mtondoo	Calophyllum inop	Mulamvi	Euphorbia cune
	Grewia forb	Mtonga	Strychnos spin	Mumbilimbi	Cordyla afri
	Grewia glan		Xylocarpus gran	Mumbwe	Acacia tort
	Grewia hols	Mtorbwe	Dombeya rotu	Munga	Dalbergia vacc
	Grewia micr	Mtozatoza	Clerodendrum	Mupungwa	Bauhinia tome
	Grewia stuh		acer	Musaponi	Securidaca long
Msomari-mwitu	Lonchocarpus		Clerodendrum	Muteya	Maerua ang
	buss		glab	Mutunguru	Ritciea capp
Msonga-mahana	Brackenridgea		Clerodendrum		Thylachium afri
	zanz		hild		Thylachium thom
Msuaki-ndewe	Azima tetr	Mtu	Avicennia mari		Nesogordonia holt
Msufi-mwituu	Bombax rhod	Mtubakeru	Cladostemon kirk	Muturu	Alchornea nept
Msunduri	Drypetes nata	Mtumbi-mweusi	Haplocoelopsis	Muwewa	Lannea schw
Mswaki	Salvadora pers		afri	Muyumbu-maji	Strophanthus pete
Mtakawa	Hibiscus tili	Mtunda	Sideroxylon iner	Mvarisoo	Lantana trif
Mtambo-mwitu	Ochna holt	Mtunda ofu	Jasminum stre	Mvepe	Lanana vibu
	Pycnocomia litt	Mtunda-wa-ngombe	Sideroxylon	Mverde	Casuarina equi
Mtambwa-kereendo	Elaeodendron		iner	Mvinje	Vangueria infa
	schw	Mtundukula	Ximenia amer	Mviro	Borassus aeth
Mtanda-mboo	Cariisa edul	Mtungudja	Solanum zanz	Mvomo	Milicia exce
	Carissa tetr	Mtunguja-mwilu	Solanum inca	Mvuli	Premna chry
Mtangelili	Feretia apod	Mtunguma	Sorindeia mada	Mvuma-nyuki	Vitex stri
Mtappa	Borassus aeth	Mtungutungi	Euphorbia cand	Mvumba	Premna hols
Mtarauli	Bivinia jalb	Mtupa	Euphorbia cand	Mvumba-ngombe	Allophylus rubi
Mtasubuhi	Pavetta tare		Millettia usam	Mvunja-kondo	Cadaba fari
Mtata-mjafari	Zanthoxylum holt		Sophora tome	Mvunja-mvumo	Combretum buty
Mtawanda	Carpodiptera afri		Tephrosia voge	Mvuyi-yachi	Combretum illa
	Markhamia zanz	Mtupa-mwitu	Euphorbia tiru	Mwaale	Raphia fari
Mtazi	Cleistanthus schl	Mtupa-wa-pori	Mundulea seri		

		TAITA			
Mwaalika	Ozoroa obov			Mbukhu	Euclea race
Mwaanyiza	Ellipanthus hema			Mdana	Ehretia bake
Mwakamwaka	Chytranthus obli	Bicharo	Plectranthus lact	Mdiguaroshi	Clerodendrum john
	Deinbollia borb	Dundu	Macaranga cong		
Mwakamwatu	Blighia unij	Dundu	Neoboutonia macr	Mfirifiri	Croton macr
Mwandiga	Adenium obes	Dunguu	Dichrostachys	Mgaraso	Nuxia cong
Mwanga (maima)	Carpodiptera afri		cine	Mgerugeru	Rhoicissus trid
Mwanga(ti)	Terminalia poly	Ibulutu	Carphalea glau	Mgombe	Buddleia pulc
	Terminalia spin	Idudongo	Polyscias stuh	Mkungu	Syzygium scl
Mwangajini	Polyalthia stuh	Igandaiyu	Adenium obes	Mkunguruli	Sorindeia mada
Mwangati	Terminalia brev	Ikope	Obetia radu	Mkwaju	Tamarindus indi
Mwangati-punda	Terminalia prun	Isengeru	Ensete vent	Mlateye	Catunaregam nilo
Mwango	Chassalia umbr	Issai	Dracaena steu	Mloga shoshoti	Grewia simi
	Pavetta sten	Izdu	Trichocladus elli	Mndana	Turraea robu
	Pavetta tare	Izi	Alchornea frut	Mnjwa	Acacia horr
	Psychotria ambo	Kidabita	Dombeya tayl	Modi	Agauria sali
	Psychotria punc	Kidadongo	Cussonia spic	Mododi	Agauria sali
	Schizozygia coff	Kidenya	Acacia hock	Mofu	Newtonia buch
Mwanzangu	Cassipourea eury	Kideo	Xerophyta spek	Mogorusi	Calodendrum cape
Mwanzi	Arundinaria alpi	Kidongadi	Cussonia spic	Moja	Sterculia afri
Mwaowa-wakulima	Vepris euge	Kigangatehi	Phoenix recl	Mora	Nuxia cong
Mwarare	Acacia brev	Kigori	Myroxylon aeth	Mora	Nuxia oppo
Mwegea	Fernandoa magn	Kijulu	Osyris abys	Mrumbawasi	Ocimum suav
Mwemaya-nguzo	Commiphora edul	Kijulu	Pittosporum viri	Mrunde	Hoslundia oppo
Mwemeanguzo	Holarrhena febr	Kiluma-ngonde	Vernonia wake	Msangana	Strombosia sche
Mwenda-usiku	Acridocarpus zanz	Kinyondo	Dalbergia lact	Msarawachi	Albizia gumm
Mwinamia-maji	Suaeda mono	Kipungupungu	Brachylaena huill	Msasa	Rauvolfia mann
Mwino	Lonchocarpus	Kirumba	Carissa edul	Msasa	Rytigynia uhli
	buss	Kirurawai	Canthium dysc	Msegembe	Schrebera alat
	Millettia usam	Kisambo	Encephalartos kisa	Msembangala	Podocarpus lati
Mwofu	Pteleopsis tetr	Kishre	Ficus glu	Mshoshote	Grewia vill
Mzalia-nyuma	Sesbania bisp	Kitariki	Rhus nata	Mshua	Senna didy
Mzigi	Securidaca long	Kiwawano	Schefflera myri	Msimaguare	Cadaba fari
Mziwaziwa	Antidesma veno	Kiwowa	Balanites pedi	Msoko	Cassia abbr
	Hunteria cong	Luafambo	Crotalaria axil	Msua	Senna sing
Mzuari	Syzygium guin	Ludi	Dicahpetalum ruhl	Mtongi	Tarenna grav
Mzunguzungu	Trema orie	Maberu	Saba como	Mtugo	Acacia gerr
Mzunze	Moringa olei	Makuruma	Newtonia buch	Mtunguru	Thylachium afri
Mzwale	Crossopteryx febr	Mamapemba	Rauvolfia mann	Muaya	Cussonia hols
Ndimu-mwitu	Teclea tric	Mamasangu	Xymalos mono	Mubaki	Zimmermannia
Ngovigovi	Scolopia rham	Mangombe	Combretum pani		ovat
Ngozo	Sterculia afri	Manuki-masi	Ekebergia camp	Mugambia	Premna hols
Nguga	Asteranthe aste	Manyoda	Ocotea usam	Mugamia	Preman resi
Okarede	Manilkara moch	Marigo-ya-ngondi	Rhynchosia hirt	Mugerugeru	Gouania long
Pumbazi	Cordia soma	Mbambara	Commiphora	Mugombo	Vitex stri
Ukamba-mwitu	Tricalysia oval		camp	Mugomo	Conyza hypo
Wacha	Vernonia hild	Mbanda	Vernonia usam	Mugungu	Dasylepis inte
Wadareh	Manilkara moch	Mbarachoka	Heteromorpha trif	Mukababu	Acacia albi
Yongo	Leptactina plat	Mbeka	Trimeria gran	Mukangu	Cassia abbr
		Mbinu	Senna didy	Mukanya	Polyscias kiku
		Mbo	Ekebergia camp	Mukenga	Markhamia zanz
		Mbuchi	Dovyalis abys	Mukigara	Croton mega

		TAVETA		TUGEN	
Mukiromboshe	Lobelia gibb				
Mukochokocho	Clerodendrum john	Irara	Hyphaene comp	Abukwa	Maytenus obsc
Mukongo	Ocotea usam	Ivungu	Saba como	Aburuwa	Maytenus sene
Mukumbutu	Melia volk	Kezia	Acacia mell	Arariet	Ekebergia cape
Mukundkunda	Abutilon long	Kiracha	Tabernaemontana	Arwe	Tamarindus indi
Mukurombosha	Solanecia mann		vent	Aul	Polyscias kiku
Mundana	Ehretia cymo	Kiririgwi	Albizia gumm	Auwe	Polyscias kiku
Munganga	Ocotea usam	Kizia	Acacia mell	Baragaya	Trichocladus elli
Mungecha	Garcinia volk	Mavale	Raphia fari	Benet	Podocarpus falc
Mungondi	Impatiens sode	Mbamba	Tapura fisc	Beriakaya	Trichocladus elli
Mungorusa	Polyscias kiku	Mbaranyungu	Trema orie	Biriokwo	Pappea cape
Munyanga	Garcinia volk	Mbariabari	Rauvolfia caff	Birirwet	Cadaba fari
Muringaringa	Cordia afri	Mdaria	Vangueria mada	Boroa	Dombeya torr
Musangano	Terminalia prun	Mfirifiri	Croton macr	Buruburiti	Ehretia cymo
Museneka	Podocarpus usam	Mfuruganji	Albizia glab	Chebiwo	Acacia nilo
Musoko	Tephrosia voge	Mhojaavandu	Senna pete	Cheboition	Tabernaemona-
Muudi	Lantana vibu	Mhongana	Phoenix recl		tana stap
Muyingo	Dalbergia mela	Mkowe	Melia volk	Chebosiwea	Maerua ang
Mwagari	Commiphora afri	Momba	Mimusops ripa	Chemininyuet	Psydrax parv
Mwagari	Commiphora caer	Moruba	Mimusops ripa	Chepkendu	Maytenus unda
Mwagari	Commiphora holt	Mposi	Elaeis guin	Chepkoriyan	Vepris glom
Mwalafichu	Chassalia disc	Mroma	Cordyla afri	Cheptewo	Craibia brow
Mwangia	Senna sing	Mseri	Newtonia buch	Cherorowo	Cissus rotu
Mwava	Millettia obla	Msesevu	Diospyros abys	Chessia	Acacia laha
Mwendinguku	Clutia abys	Mteru	Erythrococca kirk	Chirilotwa	Ficus popu
Mwensu	Trema orie	Muhaa	Neoboutonia macr	Elewa	Tarchonanthus
Mzwana	Berchemia disc	Mukababu	Acacia albi		camp
Ndana	Turraea hols	Mukisha	Kigelia afri	Elil	Obetia radu
Ndiyo-ya-kisaga	Xymalos mono	Musiwa	Suaeda mono	Emdit	Olea euro
Ndoroka	Grewia fall	Musumera	Tamarindus indi	Ewa	Schefflera abys
Ndowa	Dombeya rotu	Musungusungu	Acokanthera oppo	Garnista	Acacia brev
Ngidi	Ochna moss	Muyongolo	Diospyros mesp	Gelongilwa	Rawsonia luci
Ngoche	Lepidotrichilia volk	Muzumura	Tamarindus indi	Gelwon	Acokanthera schi
		Mvumo	Ficus seas	Gerriss	Gnidia subc
Ngunguma	Sorindeia mada	Mvure	Milicia exce	Getipkamoskon	Lantana cama
Njarambiri	Gnidia lati	Mwaale	Raphia fari	Gobetie	Clerodendrum
Orombo	Sesamothamnus riva	Mwelela	Acacia xant		myri
		Mwembwa	Grewia temb	Janbe	Impatiens sode
Pandaburi	Melia volk	Mwera	Acacia stuh	Kabarra	Withania somn
Rufichu	Zimmermannia ovat	Rubandi	Lannea schw	Kakaawet	Schrebera alat
		Rumbara	Acokanthera oppo	Kakawa	Oxyanthus spec
Shawa	Neoboutonia macr	Siege	Cordia goet	Kakurak	Psychotria kirk
Sizi	Alchornea frut			Kalelwa	Croton dich
Sumbesu	Erica mann	TIRIKI		Kamigwa	Deinbollia kili
Sumbusu	Erica mann	Kaibaraki	Solanecio mann	Kanarape	Euclea divi
Usungu	Acokanthera oppo	Lihoru	Stephania abys	Kapkoliawuet	Mystroxyton aeth
Wandanda	Tinnea aeth			Kapkololuet	Mystroxyton aeth
Wangombe	Capparis tome			Karabuiwo	Capparis fasc
Waru	Dombeya kirk			Katuya	Maytenus unda
Zirubai	Rubus nive			Keipetwo	Canthium lact
				Kekech	Preman resi

Keleluet	Croton alie	Mizisitwa	Rhamnus prin	Sogoet	Warburgia ugan
Kelwon	Acokanthera schi	Mogogowa	Landolphia buch	Soke	Warburgia ugan
Kerruwa	Nuxia cong	Mokilokwa	Keetia guin	Sorichon	Boscia cori
Ketemwe	Toddalia asia	Mokoiwo	Sterculia sten	Soya	Cussonia hols
Ketetia	Acacia laha	Mokuwo	Grewia vill		Cussonia spic
Kibabusteniet	Maesa lanc	Monongwe	Maerua decu	Sumboywa	Scutia myrt
Kimkiet	Dovyalis abys	Morilwa	Allophylus abys	Tabilikuwet	Dodonaea angu
Kinaget	Ocotea keni	Mowonwo	Rubus pinn	Tabirbirwo	Dovyalis macr
Kinokuwet	Dovyalis abys	Muchukwa	Berchemia disc	Tabuya	Lannea trip
Kipchelele	Lepidotrichilia volk	Mululekwo	Deinbollia kili	Taieswa	Psydrax parv
Kipiripi	Heinsenia dier	Mulungwa	Ozoroa insi	Takuriya	Oncoba spin
Kipkabus	Discopodium penn	Mundariwa	Dovyalis abys	Tamingetwo	Uvaria sche
		Musisetiet	Celtis afri	Tandimu	Celtis afri
Kipkariss	Erythrococca bong	Musomboriet	Faurea sp.	Tandimwo	Celtis afri
		Mwamo	Lannea schw	Tarokwa	Juniperus proc
Kipkarnet	Trimeria gran	Myengwo	Ximenia amer	Tebesuet	Croton macr
Kipkonorowa	Pavetta abys	Nagarida	Crateva adan	Tebiriguwet	Vernonia auri
Kipkoruet	Trimeria gran	Nejebbe	Aningeria adol	Temwa	Ekebergia cape
Kipumetiet	Bersama abys	Ngecheberet	Aningeria adol	Tikitua	Terminalia prun
Kisibiri	Pterolobium stell	Ngonswo	Balanites aegy	Tilingwo	Meyna tetr
Kisolobi	Clerodendrum john	Ngororet	Acacia mell	Tilolwo	Ziziphus maur
		Ngowo	Acacia drep	Tinet	Dichrostachys cine
Koktin	Zanthoxylum chal	Ninoiwa	Ziziphus mucr	Tingoswo	Flacourtia indi
Koleonik	Crateva adan	Noiwa	Ziziphus mucr	Tirikwa	Balanites rotu
Koloswet	Terminalia brow	Nosketch	Psiadia punc	Tololokwo	Sclerocarya birr
Komolik	Terminalia mada	Noswo	Manilkara moch	Tondinwa	Grewia simi
Kondilwa	Vangueria mada	Orisuet	Apodytes dimi	Tongurua	Oncoba spin
Konorowe	Euclea schi	Ortuwet	Croton mega.	Torokwa	Juniperus proc
Kotutwo	Albizia amar	Otanyan	Hibiscus caly	Tulda	Pistacia aeth
Kuress	Euphorbia cand	Porowet	Dombeya rotu	Turkukwa	Strychnos henn
Kureswa	Euphorbia obov	Roke	Dracaena steu	Turubupwa	Strychnos henn
Kurionde	Teclea simp	Samut	Cordia afri	Turukukwa	Strychnos henn
Kurrunanya	Clusia abys	Se	Albizia gerr	Tusanduet	Margaritaria disc
Lagatanet	Ochna hols	Sebelidit	Acacia gerr		Phyllanthus oval
Lalondet	Pittosporum mann	Segetetwa	Myrsine afri		
Lalun	Mimusops bags	Segoya	Alchornea frut	Tuwot	Diospyros scab
	Mimusops kumm	Sekechewo	Lantana trif	Usuet	Euclea divi
		Senetiet	Senna didy		Euclea schi
Legatetwe	Carissa edul	Septa	Podocarpus lati	Uswa	Euclea divi
Legetetuet	Carissa edul	Serratiwa	Ritchiea albe	Yabuluswa	Maerua decu
Lelechuwet	Tarchonanthus camp	Sesya	Acacia tort	Yerkwa	Pittosporum viri
		Set	Albizia gran		
Lelnet	Acacia seya	Seyet	Albizia gran		
Lemaiyua	Syzygium guin	Sietsiet	Acacia tort		
Lito	Boscia angu	Simatwa	Ficus popu		
Logatanet	Ochna ovat	Sinende	Secamone punc		
Loguru	Alchornea frut	Siriko	Boscia cori		
Lokoiwo	Ficus syco	Sirwa	Rhus rusp		
Lolawa	Mimusops kumm	Sirwob	Rhus nata		
Maiti	Cassipourea malo	Siryande	Rhus nata		
Makongiet	Ehretia cymo	Sitiwe	Grewia tric		
Mintiriwa	Dovyalis abys	Siwopyoyon	Rhus rusp	Akadetwa	Rhus nata

TURKANA

Some of these names have been checked against those in a booklet on Turkana tree uses by Edmund G.C. Barrow, Forestry adviser to the Turkana Regional Development Program. I am grateful to Mr. Barrow for the permission to use his data.

Akurau	Plectranthus igna	Eiyellel	Acacia drep	Ekuyet	Combretum frag
Akwanga	Nuxia cong		Acacia horr	Ekwanga	Abutilon long
Amalerh	Canthium lact		Acacia nubi	Ekwanget	Pavetta oliv
Amaleri	Ziziphus mucr		Acacia paol	Ekware	Gardenia volk
Amith	Dracaena elle	Eiyelot	Acacia paol	Ekwiyen	Dregea abys
Angaimu	Lannea trip	Eiyoroit	Crateva adan		Triumfetta flav
Angog	Asepalum eria	Ejamait	Phytolacca dode	Elakas	Croton zamb
Asrilipog	Abutilon hirt	Ejulot	Vernonia cine	Elakis	Securinea viro
Eakak	Cadaba gill	Ekabara	Helinus inte	Elamach	Balanites glab
Ebei	Balanites rotu	Ekabekebeke	Combretum acul		Balanites pedi
Ebelo	Maerua trip	Ekabonyo	Leucas tome	Elamai	Ximenia ameri- cana
Ebenyo	Acacia mell	Ekaburu	Capparis fasc		Trimeria gran
Ebitiothin	Cordia cren		Maytenus sene	Eless	Diospyros scab
Ebolis	Dombeya rotu	Ekadeli	Commiphora afri	Elim	Acacia etba
Ebolith	Croton dich	Ekaiye	Myrsine afri	Eliwo	Cordia oval
Ebolo	Dregea abys	Ekakale	Harrisonia abys	Elkaisekiseki	Ximenia caffra
Ebulon	Jatropha parv	Ekakebekeke	Lycium euro	Elmai	Lannea schi
	Jatropha pela	Ekalali	Ziziphus mauri- tiana	Elopojo	Cadaba glan
Echamuyee	Suaeda mono			Emakak	Cadba mira
Echekerena	Phyllanthus reti	Ekalamoran	Maytenus hete		Grewia temb
Echekereng	Acacia hock	Ekali	Grewia bico	Emalakere	Grewia tena,temb
	Tamarix nilo		Ochna hols	Emaleger	Vangueria apic
Echekota	Allophylus abys	Ekamiro	Combretum moll	Emaleh	Cassia long
Echeme	Tamarix nilo	Ekamong'o	Leptadenia hast	Emang	Cassia obtu
Echemle	Salsola dend	Ekamuka	Cassia long		Crotalaria fasc
Echiato	Clutia abys	Ekamukwa	Osyris compressa	Emaret	Dolichos oliv
Echoge	Ficus syco	Ekamuria	Carissa edul		Indigofera arre
	Ficus wake	Ekaraterate	Combretum volk		Indigofera bind
Echoke	Ficus syco	Ekareterede	Leucas jame		Tephrosia inte
	Ficus wake	Ekatha	Cassipourea maJo		Ipomoea spat
	Flacourtia indi	Ekedille	Commiphora afri	Emartai	Indigofera arre
Echokilewa	Periploca line	Ekeleu	Lepidagathis scar	Emartoi	Boscia angu
Echokokik	Euphorbia cune	Ekeli	Grewia simi	Emejen	Duosperma erem
Echorokog	Euphorbia tesc	Ekii	Ficus popu	Emerkui	Berchemia disc
Edapal	Dobera glabra	Ekimeng'	Combretum coll	Emeyan	Berchemia dis- color
Edapalakuyen	Teclea simp	Ekodek	Teclea nobi	Emeyen	Juniperus proc
Edapalukuyen	Acridocarpus zanz	Ekokwait	Albizia gumm		Dracaena elle
Edome	Cordia sine	Ekonoit	Acacia sene	Eminet	Withania somn
Edot	Kigelia afri	Ekorokorait	Capparis tome	Emisth	Euphorbia magn
Edung	Boscia cori	Ekoromait	Acacia seya	Emotoe	Ochna iner
Edurukoit	Acacia elat	Ekoromwai	Erythrococca bong	Emuss	Euclea schim
Eengol	Hyphaene comp		Acacia sene	Emuth	Maytenus unda
Eg'oli	Hyphaene comp	Ekunoit	Acacia brev	Emuthi	Tarenna grav
Egilai	Vatovaea pseu	Ekurau	Vepris glom	Emutum	Turraea parv
Egis	Cissus quad	Ekuri	Delonix elat	Enampapa	Ipomoea kitu
Egomo	Grewia tena	Ekurichanait	Acacia albi	Eneket	Gnidia subc
Egong	Hildebrandtia spp.	Ekuruchanait	Ficus popu	Enesthuwai	Celtis afri
Egum	Diospyros mesp	Ekuyen	Terminalia brow	Eng'omwo	Ekebergia cape
Eguren	Combretum moll		Trichilia emet	Engaimwo	Hyphaene cori
Eguyen	Nuxia cong		Ipomoea cica	Engol	Grewia tena
Eikwangat	Olea cape	Ekuyenit	Ipomoea spat	Engomo	
Eireng	Cadba fari				

Engomomur	Bauhinia tome	Etokwarrai	Canthium pseu	WATENDE	
Enyethonait	Acacia etba	Etolerk	Pappaea cape		
Eopong	Euphorbia robe	Etoo	Abutilon hirt	Igisurura	Acacia hock
Epakilimen	Acacia nilo	Etopojo	Commiphora	Mongusu	Dombeya burg
Epat	Grewia		camp	Murugutu	Prunus afri
	fall,moll,bico		Lannea trip	Mutaburu	Parinari cura
Epata	Terminalia spin	Etugnisth	Protea gagu	Omuhuruhuru	Vitex fisc
Epeduru	Tamarindus indi	Etulelo	Solanum inca	Omukbare	Caesalpinia volk
Epeimorok	Apodytes dimi	Etuntum	Cordia sine	Omusarawa	Entada abys
Epetet	Acacia nubi	Euriepei	Olea euro	Omuserere	Garcinia buch
Epipa	Maerua oblo	Eurr	Lippia carv		
Epoloch	Jasminum flum	Ewapetai	Combretum here		
Eponet	Kanahia lani	Ewat	Leonotis nepe		
Epongai	Grewia vill	Ewoi	Acacia elat,tort		
Epongoi	Dombeya burg	Ichoke	Ocimum suave		
Eputhekuyen	Trichocladus elli	Ikordereret	Premna resi		
Epuu	Cadaba rotu	Kameteberr	Ocimum kili		
Epwatakela	Ficus capr	Keti masop	Leucas glab		
Epwatedere	Bidens hild	Koligo	Curroria volu		
Erdung	Boscia cori	Kudar	Dovyalis abys		
Eregai	Acacia refi	Kwake	Ipomoea lapi		
Eregat	Acacia refi	Loborea	Sesamothamnus		
Ereng	Maerua cras		riva		
Eroronyet	Balanites aegy	Lochoroi	Crotalaria lach		
Erreng	Maerua ang	Lodekerai	Dregea schi		
Erut	Maerua subc	Lodongamurai	Solanum hast		
Esanyanait	Acacia elat	Lokipilak	Capparis cart		
Esanyanik	Acacia albi	Lokitoe-kayep	Cocculus hirs		
Esayait	Lawsonia iner		Cocculus pend		
Esekon	Salvadora pers	Lokwanggorum	Commiphora hild		
Eseperai	Ormocarpum tric	Loparra	Justicia odora		
Esikirait	Combretum here	Lopsok orongole	Ozoroa insi		
Esilang	Ziziphus mucr	Lorodo	Cissus rotu		
Esirilipong	Vernonia cine	Losuru	Ocimum suav		
Esiwan	Gnidia subc	Lotimat	Podocarpus falc		
Esokomortan	Meyna tetr		Podocarpus grac		
Esokon	Salvadora pers	Lotou	Jatropha fiss		
Esthano	Jasminum flum	Manimani	Jasminum flum		
Esuwat	Maerua ang	Nakadoki	Phoenix recl		
Etete (t)	Sterculia afri	Nakaleso	Sesbania seri		
	Sterculia sten	Nakora	Caucanthus albi		
Eteteleit	Alchornea frut	Namalia	Leucas jame		
Etetheru	Calotropis proc	Ngomwo	Dovyalis abys		
Ethelei	Mystroxydon aeth	Nyakabur	Stereospermum		
	Olea euro		kunt		
Ethigirait	Ormocarpum tric	Oketo-akwan	Steganotaenia aral		
Ethigiriat	Tarenna grav	Saigwe	Maerua kirk		
Etir	Acacia tort	Sinende	Secamone punc		
Etirak	Dichrostachys	Yoopong	Euphorbia cand		
	cine	Yopoliss	Strychnos henn		
Etoboka	Pavetta gard				
Etokebenyu	Toddalia asia				

- Abelmoschus 169
 ficulneus 169
 Abrus 281
 canescens 281
 precatorius 281
 schimperii 281
 Abutilon 169
 hirtum 169
 longicuspe 170
 mauritanum 170
 Acacia 252
 abyssinica 256
 adenocalyx 256
 albida 257
 ancistroclada 257
 ataxacantha 257
 brevispica 257
 bussei 257
 circummarginata=senegal
 clavigera=robusta
 condyloclada 258
 dolichocephala 258
 drepanolobium 258
 edgeworthii 258
 elatior 258
 etbaica 259
 gerrardii 259
 goetzei 259
 hamulosa 260
 hockii 260
 horrida 260
 kirkii 260
 laeta 260
 lahai 261
 macrothyrsa 261
 mellifera 261
 monticola=montigena
 montigena 261
 nilotica 261
 nubica 262
 ogadensis 262
 paolii 262
 pentagona 263
 persiciflora 263
 polyacantha 263
 reficiens 263
 robusta 263
 rovumae 264
 senegal 264
 seyal 264
 sieberiana 265
 stuhlmannii 265
 thomasii 265
 tortilis 265
 turnbulliana 266
 xanthophloea 266
 zanzibarica 266
 sp. A of FTEA (see *A. laeta*)
 sp. B of FTEA=paolii
 Acalypha 183
 echinus 183
 engleri 183
 fruticosa 183
 neptunica 184
 ornata 184
 racemosa 184
 sp. A of UKWF=frutescens
 Acanthopale 596
 pubescens 596
 Acanthus 596
 arboreus=pubescens
 eminens 596
 pubescens 596
 Achyrospermum 625
 carvalhi 625
 parviflorum 625
 radicans=carvalhi
 schimperii 626
 Acokanthera 474
 friesiorum=schimperii
 longiflora=oppositifolia
 oppositifolia 475
 schimperii 475
 Acridocarpus 174
 alopcurus 175
 glaucescens 175
 zanzibaricus 175
 taxon A 175
 sp. of KTS=taxon A
 Adansonia 168
 digitata 168
 Adenia 114
 aculeata 115
 bequaertii 115
 cissampeloides 115
 globosa 115
 gummifera 115
 inermis 115
 lanceolata 115
 lindiensis 116
 metriosiphon 116
 pseudoglobosa=globosa
 rumicifolia 116
 schweinfurthii 116
 stolzii-omitted (see p.114)
 venenata 116
 wightiana 117
 Adenium 475
 obesum 475
 somalense=obesum
 Adenocarpus 281
 mannii 281
 Adhatoda 597
 englerana 597
 schimperana 597
 Adina=Breonadia
 microcephala=B. *microcephala*
 Aeschynomene 282
 abyssinica 282
 cristata 283
 elaphroxylon 283
 mimosifolia 283
 pfundii 283
 schimperii 283
 Afrocrania 437
 volkensii 437
 Afrosersalisia 450
 cerasifera 450
 kaessneri 450
 Afzelia 235
 cuanzensis=quanzensis
 quanzensis 235
 Agauria 443
 salicifolia 443
 Agelaea 434
 heterophylla=pentagyna
 pentagyna 434
 setulosa=pentagyna
 ugandensis=pentagyna
 Ageratina 553
 adenophora 553
 Alafia 476
 caudata 476
 microstylis 476

- Alangium 437
 chinense 437
 salviifolium 438
 Albizia 269
 adanthifolia 269
 amara 269
 anthelmintica 270
 coriaria 270
 glaberrima 270
 grandibracteata 270
 grandibracteata x gummifera 271
 gummifera 271
 harveyi 271
 petersiana 271
 saman 271
 schimperiana 271
 tanganyicensis 272
 versicolor 272
 zimmermannii 272
 zygia 272
 Albizzia=Albizia
 Alchemilla 226
 argyrophylla 226
 Alchornea 184
 cordifolia 184
 hirtella 184
 laxiflora 185
 Allophylus 412
 abyssinicus 412
 africanus 412
 alnifolius=rubifolius
 (congolanus: not in Kenya)
 cuneatus=ferrugineus
 ferrugineus 412
 griseotomentosus of KTS=
 rubifolius
 kilimandscharicus 413
 macrobotrys=ferrugineus
 oreophilus=ferrugineus
 pervillei 413
 rubifolius 413
 stachyanthus=rubifolius
 tenuis=rubifolius
 volkensii=ferrugineus
 zimmermannianus 413
 sp. of KTS=ferrugineus
- Aloe 636
 ballyi 636
 cheranganiensis 637
 dawei 637
 elata 637
 fibrosa 637
 kedongensis 637
 kulalensis 637
 ngobitensis 638
 nyeriensis 638
 powysiorum 638
 rabaiensis 638
 volkensii 638
 Ampelocissus 361
 africana 361
 obtusata 361
 Anacardium 425
 occidentale 425
 Ancistrocladus 125
 robertsoniorum 125
 sp. of list=robertsoniorum
 Ancylobotrys 476
 petersiana 477
 taylorii 477
 Angylocalyx 283
 braunii 284
 Aningeria 450
 adolphi-friedericii 451
 altissima 451
 Anisocycla 61
 blepharosepala 61
 Anisotes 597
 dumosus 597
 involucratus 597
 parvifolius 597
 tanensis 598
 ukambensis 598
 Annona 44
 senegalensis 44
 chrysophylla=senegalensis
 Anthocleista 461
 grandiflora 462
 vogelii 462
 zambesiaca=grandiflora
 Anthospermum 501
 holtzii=Psychotria holtzii
 usambarense 501
- welwitschii 502
 sp. of KTS= welwitschii
 Antiaris 320
 toxicaria 320
 Antidesma 185
 membranaceum of FTEA=
 venosum
 venosum 185
 vogelianum of FTEA=venosum
 Aphania=Lepisanthes
 senegalensis=L. senegalensis
 Aphloia 103
 theiformis 103
 Apodytes 345
 dimidiata 345
 Aporrhiza 414
 paniculata 414
 Areca 641
 catechu 641
 Argomuelleria 186
 macrophylla 186
 sp. nov. 186
 Argusia 571
 argentea 571
 Argyrolobium 284
 fischeri 284
 friesianum 284
 Aristogeitonina 186
 monophylla 186
 Aristolochia 65
 albida 65
 elegans 65
 Artabotrys 45
 likimensis 45
 modestus 45
 monteiroi 45
 (nitidus=likimensis)
 Artemisia 553
 afra 553
 Arundinaria 646
 alpina 646
 Asepalum 624
 eriantherum 624
 Asteranthe 46
 asterias 46
 Asystasia 598
 drake-brockmannii 598

- Atriplex* 90
farinosa 90
Aulacocalyx see *Heinsenia*
diervilleoides=*H. diervilleoides*
Avicennia 611
marina 611
Azanza 170
garckeana 170
Azima 347
tetracantha 348
Baissea 477
multiflora 477
myrtifolia 477
Balanites 377
aegyptiaca 377
gilettii=*rotundifolia*
glabra 378
orbicularis=*rotundifolia*
pedicellaris 378
rotundifolia 378
wilsoniana 378
Baphia 284
keniensis 284
Barleria 599
prionitis 599
(proxima) 599
ramulosa 599
setigera 599
taitensis 599
ventricosa 600
volkensii 600
sp. A of UKWF 600
Sp. D of UKWF 600
Barringtonia 127
asiatica 128
racemosa 127
Bartsia 589
decurva 589
kilimandscharica=*decurva*
macrocalyx=*decurva*
longiflora 589
Baseonema 489
gregorii 489
Bauhinia 235
buscalionii 236
mombassae 235
taitensis 236
tomentosa 236
Begonia 120
meyeri-johannis 120
Beilschmidia 56
Bequaertiodendron 451
natalense 451
oblanceolatum 452
Berberis 60
holstii 60
Berchemia 354
discolor 354
Bersama 424
abyssinica 424
Bidens 554
hildebrandtii 554
kilimandscharica 554
napierae=*kilimandscharica*
taitensis=*kilimandscharica*
Bivinia 104
jalbertii 104
jaubertii=*jalbertii*
Blepharispermum 554
fruticosum=*lanceolatum*
lanceolatum 555
pubescens 555
zanguebaricum 555
sp. A of UKWF 555
Blighia 414
unijugata 414
Boehmeria 333
macrophylla 333
platyphylla=*macrophylla*
Bombax 169
rhodognaphalon 169
Bonamia see *Metaporana*
poranoides=*M. densiflora*
Borassus 641
aethiopum 642
Boscia 67
angustifolia 68
coriacea 68
keniensis 68
minimifolia 69
mossambicensis 69
salicifolia 69
tomentella 69
sp. A of FTEA=*keniensis*
sp. B 69
Bosquiea see *Trilepisium*
phoberos=*T. madagascariense*
Boswellia 380
hildebrandtii=*neglecta*
microphylla 380
neglecta 380
papyrifera 381
rivae 381
Bothriocline 556
fusca 556
Bottegoa 414
insignis 414
Bourreria 571
lyciaceae 572
nemoralis 572
petiolaris 572
teitensis 574
Brachylaena 555
hutchinsii=*huillensis*
huillensis 555
Brachystegia 236
spiciformis 236
Brackenridgea 121
zanguebarica 121
Breonadia 502
microcephala 502
Bridelia 187
atroviridis 187
cathartica 187
micrantha 187
scleroneura 187
taitensis 188
Bucea 374
antidysenterica 374
macrocarpa 375
Bruguiera 142
gymnorhiza 142
Buddleia 462
polystachya 462
pulchella 462
Buddleja see *Buddleia*
Buttonia 589
hildebrandtii=*natalensis*
natalensis 589
Buxus 314
obtusifolia 314
Byrsocarpus see *Rourea*
boivinianus=*R. coccinea*
orientalis=*R. orientalis*

- Byttneria 161
 sp. nov. 161
 Cadaba 69
 adenotricha=*farinosa*
 barbigera 70
 carneo-viridis 70
 farinosa 70
 gillettii 71
 glandulosa 71
 heterotricha 71
 longifolia 71
 mirabilis 71
 parvula 72
 rotundifolia 72
 ruspolii 72
 stenopoda 72
 Cadia 285
 purpurea 285
 Caesalpinia 237
 bonduc 237
 dalei=*insolita*
 dauensis 237
 decapetala 237
 erianthera 238
 erlangeri=*trothae*
 insolita 238
 pulcherrima 238
 trothae 238
 volkensii 238
 sp. A of FTEA=*dauensis*
 sp. nov. of KTS=*insolita*
 Calliandra 273
 gilbertii 273
 Calodendrum 365
 capense 366
 Calophyllum 145
 inophyllum 145
 Calotropis 489
 gigantea 489
 procera 490
 Calpurnea 285
 aurea 285
 subdecandra=*aurea*
 Calycosiphonia 503
 spathicalyx 503
 Calypotrotheca 87
 somalensis 87
 taitensis 88
 Camptolepis 415
 ramiflora 415
 Campylospermum=Ouratea
 bukobense=*O. hiernii*
 densiflorum=*O. densiflora*
 Cananga 46
 odorata 46
 Canavalia 286
 africana 286
 cathartica 286
 rosea 287
 virosa of FTEA=*africana*
 Canthium 503
 bibracteatum=*Pyrostria*
 bibracteata
 crassum=*Multidentia crassa*
 dyscriton 504
 fadenii 504
 glaucum 504
 gueinzii=*Keetia gueinzii*
 hispidum=*Keetia gueinzii*
 huillense=*Psydrax livida*
 inopinatum=*mombazense*
 kaessneri=*Psydrax kaessneri*
 keniense 504
 keniense of KTS=*kilifiensis*
 kilifiensis 505
 lactescens 505
 mombazense 505
 oligocarpum 505
 pallidum=*mombazense*
 phyllanthoideum=*Pyrostria*
 phyllanthoidea
 pseudosetiflorum 505
 pseudovercillatum 506
 pseudovercillatum of KTS=
 p.p. robynsianum
 recurvifolium=*Psydrax*
 recurvifolia
 robynsianum 506
 rubrocostatum=*Psydrax*
 parviflora
 schimperanum=*Psydrax*
 schimperiana
 setiflorum 506
 setiflorum of KTS=
 pseudosetiflorum
 siebenlistii of KTS=*kilifiensis*
 venosum=*Keetia venosa*
 vulgare of KTS=*Psydrax*
 faulknerae
 zanzibaricum=*Keetia*
 zanzibarica
 Capparis 72
 cartilaginea 72
 citrifolia=*sepiaria*
 elaeagnoides=*fascicularis*
 erythrocarpos 73
 fascicularis 73
 fischeri=*sepiaria*
 rosea=*erythrocarpos*
 scheffleri=*fascicularis*
 sepiaria 73
 stuhlmannii=*sepiaria*
 tomentosa 73
 viminea 74
 Cardiogyne see Maclura
 africana=*M. africana*
 Carissa 478
 bispinosa 478
 edulis 478
 tetramera 478
 Carphalea 506
 glaucescens 506
 Carpodiptera 149
 africana 149
 Carpolobia 86
 goetzei 86
 Carvalhoa 479
 campanulata 479
 macrophylla=*campanulata*
 Casaeria 104
 battiscombei 104
 engleri=*battiscombei* &
 gladiiformis
 gladiiformis 104
 Cassia 239
 abbreviata 239
 afrofistula 239
 baccarinii=*Senna baccarinii*
 bicapsularis=*Senna*
 bicapsularis
 didymobotrya=*Senna*
 didymobotrya
 floribunda=*Senna*
 septentrionalis

- (humifusa: excluded, too small)
longiracemosa=*Senna*
longiracemosa
obtusifolia=*Senna obtusifolia*
petersiana=*Senna petersiana*
senna=*Senna alexandrina*
singueana=*Senna singueana*
Cassine see: *Elaeodendron* and
Mystroxydon
aethiopica=*M. aethiopicum*
aquifolium=*E. aquifolium*
buchananii=*E. buchananii*
schweinfurthiana=*E.*
schweinfurthiana
stuhlmannii=*E. stuhlmannii*
Cassipourea 142
celastroides 143
euryoides 143
gummiflua 143
malosana 143
rotundifolia 144
ruwensorensis 144
Casuarina 316
equisetifolia 317
Catha 336
edulis 336
Catunaregam 506
nilotica 506
spinosa 507
Caucanthus 175
albidus 175
auriculatus 175
Cavacoa 188
aurea 188
Celtis 317
africana 318
durandii=*gomphophylla*
gomphophylla 318
mauritiana=*philippensis*
mildbraedii 318
philippensis 318
wightii=*philippensis*
Cephaelis see *Psychotria*
peduncularis=*P. peduncularis*
Cephalocroton 188
cordofanus 188
nudus=*cordofanus*
scabridus=*cordofanus*
velutinus=*cordofanus*
Cercantherum=*Ouratea*
sacleuxii=*O. sacleuxii*
Ceriops 144
tagal 144
Chaetacme 318
aristata 318
Chasmanthera 61
dependens 61
Chassalia 507
albiflora of *KTS*=*umbraticola*
cristata 507
discolor 508
kenyensis 508
parvifolia 508
subochreatea 508
subochreatea of *KTS*=
p.p. kenyensis
umbraticola 508
violacea of *KTS*=*discolor*
Chazaliella 508
abrupta 508
Chionanthus 467
battiscombei 468
mildbraedii 468
niloticus 468
Chlorophora see *Milicia*
excelsa=*M. excelsa*
Christiana 150
africana 150
Chrysophyllum 452
albidum 452
(delevoyi) 452
gorungosanum 452
viridifolium 453
Chytranthus 415
obliquinervis 415
prieurianus 415
sacleuxii=*prieurianus*
Cissus 361
aphyllantha 362
cactiformis 362
integrifolia 362
oliveri 362
petiolata 362
quadrangularis 362
quinquangularis 363
rotundifolia 363
Cladoceras 509
subcapitatum 509
Cladostemon 74
kirkii 74
Clausena 366
anisata 366
Cleistanthus 189
holtzii=*schlechteri*
polystachyus 189
schlechteri 189
Clematis 59
brachiata 59
hirsuta=*brachiata*
sigensis 59
simensis 59
Clerodendrum 611
acerbianum 612
buchholzii 613
capitatum 613
(dalei) 615
discolor=*myricoides*
eriphyllum 613
fischeri 613
formicarum 613
glabrum 613
hildebrandtii 614
incisum 614
johnstonii 614
makanjanum 614
melanocrater 614
microphyllum=*robecchii*
myricoides 615
robecchii 615
rotundifolium 615
scheffleri=*myricoides*
triplinerve=*formicarum*
ugandense=*myricoides*
Cliffortia 227
nitidula 227
Clutia 189
abyssinica 190
kilimandscharica 190
pedicellaris=*abyssinica*
robusta=*kilimandscharica*
Cnestis 434
mildbraedii 434
polyphylla 434

- Cocculus* 61
 hirsutus 62
 pendulus 62
Cocos 642
 nucifera 642
Coffea 509
 arabica 509
 eugenioides 509
 fadenii 510
 paolia=*rhamniphylla*
 pseudozanguebariae 510
 rhamniphylla 510
 sessiliflora 510
 zanguebariae of *KTS*=
 pseudozanguebarica
Cola 161
 clavata of *KTS*=*minor*
 greenwayi 162
 minor 162
 octoloboides 163
 porphyrantha 163
 uloloma 163
Coleus see *Plectranthus*
 forskohlii=*P. barbatus*
Colubrina 354
 asiatica 354
Colutea 287
 abyssinica 287
Combretum 130
 aculeatum 132
 adenogonium 132
 apiculatum 132
 binderianum=*collinum*
 butyrosum 133
 butyrosum of *KTS*=*illairii*
 capituliflorum 133
 chionanthoides 133
 collinum 133
 constrictum 133
 contractum 134
 denhardtiorum=*aculeatum*
 deserti=*molle*
 elgonense=*collinum*
 exalatum 134
 fischeri=*collinum*
 fragrans=*adenogonium*
 ghasalense=*adenogonium*,
 collinum
 hereroense 134
 illairii 134
 mechowianum=*collinum*
 microlepidotum=*molle*
 molle 134
 mossambicense 135
 padoides 135
 paniculatum 135
 pentagonum 135
 psidioides 136
 schumannii 136
 stenanthum=*capituliflorum*
 suluense=*collinum*
 tanaense 136
 tenuipetiolatum 136
 ukambense=*mossambicense*
 volkensii=*hereroense*
 zeyheri 136
Commiphora 381
 africana (#26) 393
 alaticaulis (#40) 400
 baluensis (#44) 401
 boiviniana=*edulis*
 boranensis (#49) 403
 bruceae (#2) 385
 buraensis=*schimperi*
 caerulea of *KTS*=*holtziana*
 campestris (#16) 390
 campestris of *KTS*=
 samharensis
 candidula=*incisa*
 cerasiformis=*chaetocarpa*
 chaetocarpa (#5) 386
 ciliata (#48) 402
 confusa (#27) 394
 coriacea=*myrrha*
 corrugata (#42) 400
 crenulata of *KTS*=*gracilispina*,
 kua, *swynnertonii*
 cyclophylla (#30) 397
 danduensis (#22) 392
 edulis (#35) 398
 ellenbeckii (#9) 387
 eminii (#33) 397
 engleri of *KTS*=
 longipedicellata
 erlangeriana (#37) 399
 erlangeriana of *KTS*=*unilobata*
 erosa (#28) 396
 erythraea of *KTS*=*p.p. holtziana*
 flaviflora=*kua*
 gileadensis of *KTS*=*boranensis*
 glabrata=*campestris*
 gowllo=*kua* var. *gowllo*
 gracilispina (#4) 386
 guidotii (#36) 398
 hildebrandtii of *KTS*=*ogadensis*
 habessinica (#11) 388
 heterophylla=*campestris*
 hildebrandtii of *KTS*=*ogadensis*
 hirtella=*sphaerocarpa*
 holosericea=*edulis*
 holtziana (#45) 401
 incisa (#3) 386
 kua (#6) 386
 lindensis (#12) 388
 longipedicellata (#34) 398
 kataf (#46) 402
 madagascariensis of *KTS*=
 habessinica, *lindensis*
 merkeri (#10) 387
 mildbraedii (#31) 397
 missionis=*eminii*
 mollis (#32) 397
 (#*mombassensis*) excluded,
 not in Kenya
 myrrha (#15) 389
 obovata (#25) 393
 oblongifolia (#30) 388
 oddurensis (#8) 387
 ogadensis (#43) 400
 ovalifolia (#14) 389
 paolii=*pseudopaolii*
 pilosa=*africana*
 pilosissima=*edulis*
 pseudopaolii (#46) 402
 pteleifolia (#18) 391
 pteleifolia of *KTS*=
 p.p. samharensis
 retifolia=*erlangeriana*
 riparia=*mildbraedii*
 rivae of *KTS*=*campestris*
 rostrata (#1) 385
 samharensis (#23) 393
 sarandensis (#41) 400
 scaberula=*edulis*

- scheffleri*=*campestris*
schimperii (#24) 393
sennii (#19) 392
sphaerocarpa (#29) 396
sessiliflora=*guidottii*
staphyleifolia of KTS=
mildbraedii
swynnertonii (#7) 387
tenuis (#20) 392
tomentosa=*Lannea rivae*
trothae=*schimperii*
unilobata (#38) 399
velutina (#50) 403
voense=*Platycelyphium voense*
zanzibarica (#39) 399
zimmermannii=*emini*
sp. A (#17) 391
sp. B (#21) 392
sp. C (#51) 403
Connarus 435
longistipitatus 435
Conopharyngia=*Tabernaemontana*
elegans=*T. elegans*
holstii=*T. pachysiphon*
johnstonii=*T. stapfiana*
usambarensis=*T. ventricosa*
Conyza 556
hypoleuca 556
vernonioides 556
Cordia 573
abyssinica=*africana*
africana 573
crenata 574
ellenbeckii 574
faulknerae 574
gharaf of KTS=
p.p. quercifolia, p.p. sinensis
goetzei 574
guineensis 574
longepetiolata 574
millenii 575
monoica 575
ovalis=*monoica*
quercifolia 575
sinensis 575
somaliensis 576
subcordata 576
torrei 576
sp. nr. quarensis=*quercifolia*
sp. B 576
Cordyla 239
africana 240
Cotyledon 87
barbeyi 87
Courbonia=*Maerua*
glauca=*M. decumbens*
subcordata=*M. decumbens*
Craibia 287
brevicaudata 287
brownii 288
laurentii 288
zimmermannii 288
Crassocephalum see *Solanecio*
bojeri=*S. angulatus*
mannii=*S. mannii*
Craterispermum 510
laurinum=*schweinfurthii*
schweinfurthii 510
Craterogyne see *Dorstenia*
kameruniana=*D. kameruniana*
Crateva 74
adansonii 75
Cremaspora 511
triflora 511
Crossopteryx 512
febrifuga 512
Crotalaria 288
agatiflora 289
axillaris 289
fascicularis 290
goodiiiformis 290
imperialis of KTS=*agatiflora*
keniensis 290
lachnocarpoides 290
lachnophora 290
lebrunii 291
lukwangulensis 291
mauensis 291
natalitia 291
pseudospartium 291
saxatilis of KTS=*goodiiiformis*
tabularis 291
Croton 190
alienus 191
dichogamus 191
macrostachyus 191
megalocarpoides 192
megalocarpus 192
menyhartii 192
polytrichus 192
pseudopulchellus 193
scheffleri 193
somalensis 193
sylvaticus 193
talaeporos 193
zambesicus 194
sp. nr. sylvaticus of KTS=
talaeporos
Cryptocarya 56
liebertiana 56
Cryptolepis 490
apiculata 490
hypoglaucha 491
obtusa 491
sinensis 490
Curroria 491
volubilis 491
Cussonia 438
arborea 438
holstii 438
spicata 439
zimmermannii 439
Cyathea 39
(dregei: not in Kenya)
humilis 39
manniana 39
stuhlmannii=*humilis*
Cycas 39
thouarsii 39
Cyclocheilon see *Asepalum*
eriantherum=*A. eriantherum*
Cylicomorpha 120
parviflora 120
Cynanchum 491
omissum 491
tetrapterum 492
(validum) excluded: not here
Cynometra 240
greenwayi=*suaheliensis*
lukei 240
suaheliensis 240
webberi 240
sp. 1 240

- Cyphostemma 363
 jiguu 363
 kilimandscharica 364
 pachypus=jiguu
 sp. of List=jiguu
 Dalbergia 291
 boehmii 292
 bracteolata 292
 commiphoroides 292
 eremicola 292
 lactea 292
 melanoxylon 293
 microcarpa=microphylla
 microphylla 293
 vaccinifolia 293
 sp of KTS=eremicola
 Dasylepis 105
 integra 105
 Deinbollia 416
 borbonica 416
 kilimandscharica 416
Dekindtia see *Chionanthus*
 africana=*C. battiscombei*
 Delonix 241
 baccal 241
 elata 241
 Derris 293
 trifoliata 294
 Desmodium 294
 umbellatum 294
 velutinum 294
Dialiopsis see *Zanha*
 africana=*Z. africana*
 Dialium 242
 holtzii 242
 orientale 242
 Dichapetalum 231
 arenarium 231
 deflexum of checklist=
 arenarium
 eickii 232
 fadenii 232
 fructuosum 232
 keniense=zenkeri
 madagascariense 232
 mossambicense 232
 ruhlandii 233
 stuhlmannii 233
 zenkeri 233
 Dichrostachys 273
 cinerea 273
 sp. A of FTEA=cinerea
 sp. B of FTEA=
 Calliandra gilbertii
 Dicliptera 600
 sp. C of UKWF 601
 Dicraeopetalum 295
 stipulare 295
 Dicranolepis 95
 usambarica 95
 sp. of KTS=usambarica
 Dictyophleba 479
 lucida 479
 Didymosalpynx 512
 norae 512
 Diospyros 445
 abyssinica 445
 amaniensis 446
 brucei of List=kabuyeana
 bussei=consolatae
 consolatae 446
 cornii 446
 greenwayi 446
 ferrea 446
 kabuyeana 446
 kanurii 446
 mespiliformis 447
 natalensis 447
 scabra 447
 shimbaensis 447
 squarrosa 447
 usambarensis 448
 wajirensis 448
 zombensis 448
 sp.nov (1) of KTS=scabra
 sp.nov. (2) of KTS=wajirensis
 Diphasia 367
 sp. A of FTEA 367
 Diphasiopsis 367
 fadenii 367
Dirichletia see *Carphalea*
 glaucescens=*C. glauca*
 sp of KTS=*C. glauca*
 Discopodium 577
 eremanthum 577
 penninervum 578
 sp. of KTS=eremanthum
 Dobera 348
 glabra 348
 loranthifolia 349
 Dodonaea 416
 angustifolia 416
 viscosa 417
 viscosa of KTS=
 angustifolia, p.p.
 Dolichos 295
 oliveri 295
 Dombeya 163
 burgessiae 163
 dawei=burgessiae
 faucicola=torrida
 gilgiana=kirkii
 gillettii=kirkii
 goetzenii=torrida
 kirkii 164
 mukole=kirkii
 praetermissa=taylorii
 quinqeseta 164
 rotundifolia 164
 taylorii 164
 torrida 165
 umbraculifera=kirkii
 sp.1 of KTS=kirkii
 sp.2 of KTS=kirkii
 Dorstenia 320
 alta 321
 kameruniana 321
 scaphigera=alta
 Dovyalis 105
 abyssinica 105
 hispidula 106
 macrocalyx 106
 sp. A of FTEA=*sp. nov*
 Dracaena 638
 afromontana 639
 aletriformis 639
 deremensis 639
 ellenbeckiana 639
 fragrans 639
 hookeriana=aletriformis
 laxissima 640
 steudneri 640
 usambarensis 640
 sp. nov. of KTS=ellenbeckiana

- Dregea 492
 abyssinica 492
 macrantha 492
 rubicunda 492
 schimperi 493
 stelostigma 493
 Drypetes 194
 gerrardii 194
 natalensis 195
 parvifolia 195
 reticulata 195
 usambarica 195
 sp. nov. of KTS=parvifolia
 Duosperma 601
 eremophilum 601
 kilimandscharica 601
 sp. A of UKWF 602
 Duranta 615
 erecta 615
 repens=erecta
 Dyschoriste 602
 thunbergiiflora 602
 Ecbolium 602
 striatum 602
 Ehretia 576
 amoena 576
 bakeri 576
 cymosa 576
 janjalle 577
 litoralis=Bourreria nemoralis
 petiolaris=Bourreria petiolaris
 teitensis=Bourreria teitensis
 sp. near obtusifolius of KTS=
 janjalle
 sp. nov. aff. buxifolia of KTS=
 Bourreria lyciaceae
 Ekebergia 404
 benguelensis 404
 capensis 404
 rueppelliana=capensis
 Elaeis 642
 guineensis 643
 Elaeodendron 336
 aquifolium 337
 buchananii 337
 schlechterianum 337
 schweinfurthianum 337
 Ellipanthus 435
 hemandradenioides 435
 Embelia 459
 keniensis 459
 schimperi 459
 Encephalartos 40
 bubalinus 40
 hildebrandtii 40
 kisambo 40
 powysiorum 41
 tegulaneus 41
 Englerastrum 626
 scandens 626
 sp. A 626
Englerodaphne=Gnidia
 subcordata=G. subcordata
Enneastemon=Monanthotaxis
 fornicatus=M. fornicata
 schweinfurthii=
 M. schweinfurthii
 Ensete 636
 edule 636
 ventricosum = edule
 Entada 274
 abyssinica 274
 gigas 274
 leptostachya 274
 pursaetha=rheedii
 rheedii 275
 Entandophragma 405
 angolense 405
Enterospermum see Tarenna
 littorale=Tarenna littorale
 Erica 443
 arborea 444
 (benguelensis) 443
 excelsa 444
 mannii 444
 pallidiflora=mannii
 trimera 444
 Erlangea 556
 fusca 556
 Erythrina 296
 abyssinica 296
 burttii 296
 excelsa 297
 melanacantha 297
 rotundata-obovata=
 melanacantha
 sacleuxii 297
 webberi=abyssinica, sacleuxii
 Erythrochlamys 626
 spectabilis 626
 Erythrococca 195
 atrovirens 196
 bongensis 196
 fischeri 196
 kirkii 196
 menyhartii 197
 pubescens 197
 trichogyne 197
 usambarica 197
 sp. C of FTEA 197
 Erythrophloeum 243
 guineense=suaveolens
 suaveolens 243
 Erythroxylum 177
 emarginatum 178
 fischeri 178
 platyclados 178
 platycladum=platyclados
 Euclea 448
 divinorum 448
 frutuosa=natalensis
 natalensis 449
 schimperi=racemosa
 racemosa 449
 Eugenia 125
 bukobensis=capensis
 capensis 125, 126
 taxon A, B, C, D, E, F, G
 125-126
 sp. nov. of KTS=taxon F
Eupatorium=Ageratina
 adenophorum=A. adenophora
 Euphorbia 197
 adjurana 200
 atroflora 200
 borenensis 200
 breviarticulata 201
 bussei 201
 calamiformis 201
 candelabrum 201
 cryptospinosa 201
 cuneata 202
 cussonoides 202
 engleri 202

- erlangeri 202
 espinosa 202
 fluminis 202
 friesiorum 203
 glochidiata 203
 goetzei 203
 gossypina 203
grandicornis of KTS=
 breviarticulata
 heterochroma 203
 heterospina 203
 jatrophoides 204
 joyae 204
kibwezensis=bussei
 magnicapsula 204
 matabelensis 204
 nubica 204
 nyikae 204
 obovalifolia 204
 polyantha 205
pseudograntii of KTS=
 friesiorum
 quinquecostata 205
 robecchii 205
 scarlatina 205
 scheffleri 205
spinescens=*cuneata*
 tanaensis 206
 tenuispinosa 206
 tescorum 206
 tirucalli 206
 ugandensis 206
 usambarica 206
 wakefieldii 206
sp. of KTS=*tanaensis*
 Euryops 557
 brownei 557
 elgonensis 557
 Excoecaria 207
 bussei 207
 madagascariensis 207
 venenifera=
 Spirostachys venenifera
Fagara=*Zanthoxylum*
 chalybea=*Z. chalybeum*
 holtziana=*Z. holtzianum*
 leprieurii=*Z. rubescens*
 macrophylla=*Z. gillettii*
 mildbraedii=*Z. mildbraedii*
 usambarensis=*Z. usambarense*
 Fagaropsis 367
 angolensis 367
 hildebrandtii 368
Faidherbia=*Acacia*
 albida=*A. albida*
 Faurea 99
 ? *rochetiana* 99
 ? *saligna* 99
 speciosa=? *rochetiana*
 Feretia 512
 apodanthera 512
 Fernandoa 590
 magnifica 590
 Ficus 321
 arbutifolia=*populifolia*
 amadiensis 323
 asperifolia 323
 brachylepis=*sansibarica*
 brachypoda=*ovata*
 bubu 323
 bussei 323
 capensis=*sur*
 capraeifolia=*capraeifolia*
 capraeifolia 325
 chirindensis 325
 cordata 325
 craterostoma 325
 cyathistipula 325
 dekdekana=*thonningii*
 depauperata=*lingua*
 eribotryoides=*saussureana*
 eriocarpa=*thonningii*
 exasperata 325
 faulkneriana 326
 glumosa 326
 gnaphalocarpa=*sycomorus*
 ingens 326
 kirkii=*scasselatii*
 kitubalu=*amadiensis*
 lingua 326
 lutea 326
 mammigera=*thonningii*
 mucoso of KTS=*sycomorus*
 natalensis 327
 nigropunctata 327
 ottoniifolia 327
 ovata 327
 polita 327
 populifolia 327
 quibeba=*lutea*
 rhynhocarpa=*cyathistipula*
 salicifolia=*cordata*
 sansibarica 328
 saussureana 328
 scasselatii 328
 sonderi=*glumosa*
 stortophylla=*asperifolia*
 stuhlmannii 328
 subcalcarata=*lutea*
 sur 328
 sycomorus 328
 thonningii 329
 tremula 329
 urceolaris=*asperifolia*
 vallis-choudae 330
 vasta 330
 verruculosa 330
 vogelii=*lutea*
 wakefieldii=*vasta*
 Filicium 417
 decipiens 417
 Flabellaria 176
 paniculata 176
 Flacourtia 106
 afra=*indica*
 indica 106
 Flemingia 297
 grahamiana 297
 Flueggea 207
 virosa 207
 Funtumia 479
 africana 479
 latifolia=*africana*
 Galiniera 513
 coffeoides=*saxifraga*
 saxifraga 513
 Garcinia 145
 buchananii 146
 huillensis=*buchananii*
 livingstonei 146
 volkensii 146
 Gardenia 513
 fiorii 513
 jovis-tonantis=*ternifolia*

- lutea*=ternifolia
 posoquerioides 513
 ternifolia 514
 transvenulosa 514
sp.?resiniflua of KTS=
 transvenulosa
 volkensis 514
GENUS NOVUM of KTS =
 Givotia
 Gerrardanthus 117
 grandiflorus 118
 lobatus 118
 Gigasiphon 243
 humblotianum of KTS=
 macrosiphon
 macrosiphon 243
 Givotia 208
 gosai 208
 Glenniea 418
 africana 418
 Gnidia 96
 glauc 96
 lamprantha 96
 latifolia 96
 subcordata 97
 Gongronema 493
 angolense 493
 Gossypoides 171
 kirkii 171
 Gouania 355
 longispicata 355
 Grandidiera 107
 boivinii 107
 Grevea 226
 madagascariensis 226
 sp. nov. of KTS=
 madagascariensis
 Grewia 150
 bicolor 153
 calymmatosepala 154
 densa 154
 ectasicarpa 154
 ehretioides=sulcata
 erythraea=p.p. tenax,
 p.p. tembensis
 fallax 154
 flavescens 154
 forbesii 155
 glandulosa 155
 holstii 155
 lilacina 155
 micrantha 155
 microcarpa 156
 mollis 156
 nematopus 156
 penicillata 156
 plagiophylla 156
 praecox 157
 similis 157
 (*stolzii*)-specimens not seen
 stuhlmannii 157
 sulcata 157
 tembensis 158
 tembensis var. *nematopus*=
 nematopus
 tenax 158
 trichocarpa 158
 tristis 158
 truncata 159
 vaughanii 159
 villosa 159
Grumilea=Psychotria
 bequaertii=P. mahonii
 elliottii=P. orophila
 exserta=P. fractinervata
 lauracea=P. lauracea
 megistosticta=P. mahonii
 platyphylla=
 P. pseudoplatyphylla
 riparia of KTS=
 P. crassipatala, P. riparia
 Guettarda 514
 speciosa 514
 Gymnema 493
 sylvestre 493
Gymnolaena=Sacleuxia
 newii=S. newii
 Gyrocarpus 57
 americanus 57
 hababensis 58
 jacquinii=americanus
 Hagenia 227
 abyssinica 227
 Halleria 589
 lucida 589
 Haplocoelopsis 418
 africana 418
 Haplocoelum 418
 foliolosum 419
 inoploeum 419
 mombasense 419
 trigonocarpum 419
 Harmsia 165
 sidoides 165
 Harrisonia 375
 abyssinica 375
 Harungana 146
 madagascariensis 147
Heeria=Ozoroa
 mucronata=O. mucronata
 reticulata=O. insignis
 Heinsenina 515
 diervillioides 515
 Heinsia 515
 crinita 515
 densiflora=zanzibarica
 zanzibarica 515
 Helichrysum 557
 argyranthum 557
 chionoides 557
 guilelmi 558
 nandense 558
 Helinus 355
 integrifolius 355
 mystacinus 356
 Heritiera 165
 littoralis 165
 Hernandia 58
 nymphaeifolia 58
 sonora=nymphaeifolia
 Heteromorpha 442
 trifoliata 442
 Heywoodia 208
 lucens 208
 Hibiscus 171
 calyphyllus 172
 ?platycalyx 172
 schizopetalus 172
 tiliaceus 172
 sp. aff. rostellatus 172
 Hildebrandtia 584
 africana 584
 obcordata 584
 sepalosa 584

- | | | | | | |
|-----------------------------------|-----|------------------------------------|-----|---------------------------------|-----|
| somalensis | 585 | coriacea | 644 | Jasminum | 468 |
| Hippocratea | 338 | <i>coriacea</i> of KTS= | | abyssinicum | 468 |
| africana | 338 | coriacea & compressa | | dichotomum | 469 |
| crenata | 338 | <i>parvula</i> =coriacea | | <i>eminii</i> =schimperii | |
| goetzei | 339 | <i>Iboza</i> =Tetradenia | | floribundum | 469 |
| <i>indica sensu UKWF</i> =pallens | | <i>multiflora</i> =T. riparia | | fluminense | 469 |
| pallens | 339 | Ilex | 335 | meyeri-johannis | 470 |
| paniculata | 339 | mitis | 335 | <i>parvifolium</i> =streptopus | |
| spp. | 338 | Illigera | 58 | pauciflorum | 470 |
| Hirtella | 230 | pentaphylla | 58 | punctulatum | 470 |
| zanzibarica | 230 | Impatiens | 91 | schimperii | 470 |
| Holarrhena | 480 | sodenii | 91 | stenolobum | 471 |
| <i>febrifuga</i> =pubescens | | Indigofera | 298 | streptopus | 471 |
| pubescens | 480 | arrecta | 298 | <i>tomentosum</i> =stenolobum | |
| <i>Holmskioldia</i> see Karomia | | binderi | 298 | Jateorhiza | 62 |
| <i>gigas</i> =K. gigas | | emarginella | 298 | palmata | 62 |
| <i>Holstia</i> see Neoholstia | | garckeana | 299 | Jatropha | 209 |
| <i>tenuifolia</i> =N. tenuifolia | | hombrei | 299 | arguta | 209 |
| Homalium | 107 | lupatana | 299 | curcas | 210 |
| abdessammadii | 108 | swaziensis | 299 | dichtar | 210 |
| longistylum | 108 | trita | 299 | ellenbeckii | 210 |
| Hoslundia | 627 | sp. nov. | 298 | <i>ferox</i> =dichtar | |
| opposita | 627 | Inhambanella | 453 | <i>fissispina</i> =ellenbeckii | |
| Hugonia | 179 | henriquesii | 453 | hildebrandtii | 210 |
| castaneifolia | 179 | Iodes | 345 | multifida | 210 |
| Hunteria | 480 | usambarensis | 345 | parvifolia | 210 |
| congolana | 480 | Ipomoea | 585 | pelargoniiifolia | 211 |
| zeylanica | 480 | albivenia | 585 | rivae | 211 |
| Hybanthus | 84 | cicatricosa | 585 | spicata | 211 |
| fasciculatus | 84 | donaldsonii | 586 | stuhlmannii | 211 |
| Hymenaea | 243 | hildebrandtii | 586 | <i>Jaundea</i> see Rourea | |
| verrucosa | 243 | kituiensis | 586 | <i>pinnata</i> =R. thomsonii | |
| Hymenocardia | 209 | lapidosa | 586 | <i>Jobalboa</i> =Apodytes | |
| acida | 209 | mauritiana | 587 | <i>aberdarica</i> =A. dimidiata | |
| <i>ulmoides</i> of KTS (excluded, | | paolii | 587 | Julbernardia | 244 |
| not in Kenya) | | rubens | 587 | magnistipulata | 244 |
| Hymenodictyon | 516 | spatulata | 587 | Juniperus | 41 |
| floribundum | 516 | triflora | 587 | procera | 41 |
| parvifolium | 517 | urbaniana | 587 | <i>Jussiaea suffruticosa</i> = | |
| Hypericum | 147 | Isolona | 46 | Ludwigia octovalvis | |
| <i>keniense</i> =revolutum | | cauliflora | 46 | Justicia | 603 |
| kiboense | 147 | Ixora | 517 | cordata | 603 |
| <i>lanceolatum</i> =revolutum | | <i>latituba</i> =scheffleri | | extensa | 603 |
| quartinianum | 147 | narcissodora | 517 | odora | 603 |
| revolutum | 147 | scheffleri | 517 | pseudorungia | 604 |
| roeperanum | 148 | <i>ulugurensis</i> =scheffleri | | sp. D of UKWF | 604 |
| Hyphaene | 643 | <i>sp. near I. odorata</i> of KTS= | | Kanahia | 494 |
| compressa | 643 | narcissodora | | laniflora | 494 |

- Karomia 616
 gigas 616
 Kedrostis 118
 gijef 118
 pseudogijef 119
 Keetia 517
 gueinzii 517
 venosa 518
 zanzibarica 518
 Kigelia 590
 aethiopum=africana
 africana 591
 moosa 591
 pinnata=africana
 Kirkia 376
 tenuifolia 376
 Kleinia spp. 648
 Kotschya 299
 aeschynomenoides 300
 africana 300
 recurvifolia 300
 Kraussia 518
 kirkii 519
 speciosa 519
 Lagynias 519
 littoralis=pallidiflora
 pallidiflora 519
 Lamprothamnus 519
 zanguebaricus 519
 Landolphia 481
 buchananii 481
 kirkii 481
 watsoniana 482
 Lannea 426
 alata 426
 amaniensis=welwitschii
 floccosa=rivae
 fulva 427
 greenwayi 427
 humilis 427
 malifolia 427
 rivae 427
 schimperii 427
 schweinfurthii 428
 stuhlmannii=schweinfurthii
 triphylla 428
 welwitschii 428
 Lantana 616
 camara 616
 rhodesiensis 617
 trifolia 617
 viburnoides 617
 Lasianthus 520
 kilimandscharicus 520
 Lasiodiscus 356
 ferrugineus=mildbraedii
 mildbraedii 356
 pervillei 356
Lasiosiphon=Gnidia
 glaucus=G. *glaucia*
 lampranthus=G. *lamprantha*
 latifolius=G. *latifolia*
 Lawsonia 92
 inermis 92
 Lecaniodiscus 419
 fraxinifolius 420
 Leea 364
 guineensis 364
 Leonotis 627
 africana=nepetifolia
 leonitis 627
 mollissima 627
 nepetifolia 628
 Lepidagathis 604
 scariosa 604
 Lepidotrichilia 405
 volkensii 405
 Lepisanthes 420
 senegalensis 420
 Leptactina 520
 platyphylla 520
 Leptadenia 494
 hastata 494
 Leptaulus 346
 holstii 346
 Leptonychia 166
 usambarensis 166
 Lettowianthus 46
 sp. (cf. *stellatus*) 46
 Leucaena 275
 glaucia=latisiliqua
 latisiliqua 275
 Leucas 628
 argentea 628
 calostachys 629
 glabrata 629
 grandis 629
 jamesii 629
 mollis=grandis
 pododiskos=tomentosa
 pratensis=glabrata
 tomentosa 630
 sp. A of UKWF=argentea
 Lindackeria 108
 bukobensis=somalensis
 somalensis 108
 sp. of KTS=bukobensis
Linociera=Chionanthus
 battiscombei=C. *battiscombei*
 giordanii=C. *mildbraedii*
 latipetala=C. *mildbraedii*
 nilotica=C. *niloticus*
 Lippia 618
 carviadora 618
 dauensis 618
 grandifolia 618
 javanica 618
 kituiensis 618
 somalensis 618
 somalensis of UKWF=
 Lantana *viburnoides*
 ukambensis=kituiensis
 Lobelia 570
 bambuseti 570
 gibberoa 570
Loeseneriella see *Hippocratea*
 africana=H. *africana*
 Loewia 66
 tanaensis 66
 Lonchocarpus 300
 bussei 301
 ericalyx 301
 kanurii 301
 laxiflorus=bussei
 Lova 405
 swynnertonii 405
 Ludia 108
 mauritiana 108
 sessiliflora=mauritiana
 Ludwigia 94
 octovalvis 95
 stenorraphe 95

- Lumnitzera 137
 racemosa 137
 Lycium 578
 europaeum 578
 Macaranga 212
 capensis 212
 conglomerata 212
 kilimandscharica 212
 ruwenzorica=capensis
 schweinfurthii 212
 Maclura 330
 africana 330
 Macphersonia 421
 gracilis 421
 Macrorungia 604
 pubinervia 605
 Maerua 75
 angolensis 76
 calantha 76
 calophylla=triphylla
 crassifolia 77
 decumbens 77
 denhardtiorum 77
 edulis=decumbens
 endlichii 78
 glauca 78
 grantii 78
 holstii 78
 johannis=triphylla
 kaessneri 78
 kirkii 78
 macrantha 79
 mungaii 79
 oblongifolia 79
 parvifolia 79
 pubescens=triphylla
 sessiliflora 79
 subcordata=decumbens
 triphylla 79
 sp. A of FTEA 80
 sp. C of FTEA=mungaii
 Maesa 459
 lanceolata 459
 Maesopsis 357
 eminii 357
 Majidea 421
 zanguebarica 421
 Malacantha 453
 alnifolia 453
 Mallotus 231
 oppositifolius 213
 Manilkara 454
 butugi 454
 discolor 454
 mochisia 454
 sansibarensis 454
 sulcata 455
 Margaritaria 213
 discoidea 213
 Markhamia 591
 hildebrandtii=lutea
 lutea 592
 (obtusifolia) 592
 platycalyx=lutea
 zanzibarica 592
 Mascarenhasia 482
 arborescens 482
 elastica=arborescens
 Maytenus 339
 acuminata 339
 arbutifolia 340
 buchananii 340
 drummondii 340
 englerana=arbutifolia
 heterophylla 340
 keniensis 341
 mossambicensis 341
 obscura 341
 ovatus of KTS=obscura,
 arbutifolia, keniensis
 putterlickioides 341
 senegalensis 341
 senegalensis of KTS=
 p.p. heterophylla
 undata 342
 Meineckia 214
 fruticans 214
 phyllanthoides 648
 Melanodiscus
 oblongus=Glenniea africana
 sp. nov. of KTS=
 Haplocoelopsis africana
 Melia 406
 volkensii 406
 Melodorum=Sphaerocoryne
 gracile=S. gracilis
 Memecylon 128
 amaniense 128
 buxoides 128
 fragrans 129
 melindense=sansibaricum
 mouririifolium 129
 sansibaricum 129
 teitense 129
 verruculosum 129
 sp. nov. of KTS=buxoides
 Metaporana 588
 densiflora 588
 Meyna 520
 tetraphylla 521
 Mezoneuron 244
 angolense 244
 Micrococca 214
 holstii 214
 scariosa 215
 Microglossa 558
 hildebrandtii 558
 pyrifolia 558
 Mikaniopsis 558
 bambuseti 558
 clematoides of UKWF=
 bambuseti
 usambarensis 559
 Mildbraedia 215
 carpinifolia 215
 Milicia 331
 excelsa 331
 Millettia 301
 dura 302
 lasiantha 302
 leucantha 302
 oblata 302
 tanaensis 302
 usaramensis 303
 Mimosa 275
 pigra 276
 Mimulopsis 605
 alpina 605
 arborescens 605
 solmsii 605
 Mimops 455
 aedificatoria 455
 bagshawei 455

- fruticosa* = *obtusifolia*
 kummel 456
obtusifolia 456
riparia 456
schliebenii = *somalensis*
somalensis 456
 Mitragyna 521
 rubrostipulata 521
 Mkilua 47
 fragrans 47
 Moghania = *Flemingia*
 grahamiana = *F. grahamiana*
 Momordica 119
 spinosa 119
 Monanthotaxis 47
 buchananii 48
 faulknerae 48
 fornicata 48
 parvifolia 48
 schweinfurthii 48
 trichocarpa 49
 Mondia 495
 ecornuta 495
 ecornuta of UKWF = *whytei*
 whytei 495
 Monodora 49
 grandidieri 49
 junodii 49
 myristica 49
 Moringa 81
 arborea 82
 borziana 82
 longituba 82
 oleifera 82
 rivae 83
 ruspoliana 83
 stenopetala 83
 Morus 331
 lactea = *mesozygia*
 mesozygia 331
 Mostuea 463
 brunonis 463
 microphylla 463
 rubrinervis = *brunonis*
 walleri = *brunonis*
 Mucuna 303
 gigantea 303
 poggei 303
 stans 304
 Multidentia 522
 crassa 522
 Mundulea 304
 sericea 304
 Mussaenda 522
 arcuata 522
 erythrophylla 522
 microdonta 523
 monticola 523
 odorata = *microdonta*
 Myrianthus 332
 holstii 332
 Myrica 316
 kandiana = *salicifolia*
 meyeri-johannis = *salicifolia*
 salicifolia 316
 Mysine 460
 africana 460
 Mystroxydon 342
 aethiopicum 342
 Nauclea 523
 latifolia 523
 Nectaropetalum 178
 kaessneri 178
 sp. of list = *kaessneri*
 Neoboutonia 215
 macrocalyx 215
 melleri 216
 Neoholstia 216
 tenuifolia 216
 Nesogordonia 166
 holtzii 166
 parvifolia = *holtzii*
 Newtonia 276
 buchanani = *buchananii*
 buchananii 276
 erlangeri 276
 hildebrandtii 276
 paucijuga 277
 Nidorella = *Conyza*
 arborea = *C. vernonioides*
 Notobuxus = *Buxus*
 obtusifolia = *B. obtusifolia*
 obtusifolius = *B. obtusifolia*
 Nuxia 463
 congesta 464
 floribunda 464
 oppositifolia 464
 Obetia 333
 pinnatifida = *radula*
 radula 334
 Ochrea 121
 holstii 121
 holtzii 122
 inermis 122
 insculpta 122
 keniensis 121
 kirkii 122
 mossambicensis 122
 ovata 122
 prunifolia = *holstii*
 thomasiana 123
 sp. A 123
 Ocimum 630
 kilimandscharicum 630
 lamiifolium 630
 suave 630
 tomentosum 631
 sp. B of UKWF 631
 Ocotea 56
 argylei 56
 kenyensis 56
 usambarensis 57
 Odyndea = *Quassia*
 O. zimmermannii = *Q. undulata*
 Olax 349
 dissitiflora = *obtusifolia*
 obtusifolia 349
 Oldfieldia 216
 somalensis 216
 Olea 471
 africana = *europaea*
 capensis 471
 chrysophylla = *europaea*
 europaea 472
 hochstetteri = *capensis*
 kilimandscharica = *europaea*
 mildbraedii = *Chionanthus*
 mildbraedii
 schliebenii = *capensis*
 welwitschii = *capensis*
 woodiana 472
 Olinia 94
 rochetiana 94
 usambarensis = *rochetiana*

- Oncinotis* 482
tenuiloba 482
sp. of list=tenuiloba
Oncoba 109
routledgei 109
spinosa 109
spinosa var. routledgei =
routledgei
Ophrypetalum 50
odoratum 50
Opilia 351
amentacea 351
campestris 352
celtidifolia=*amentacea*
Oreobambos 647
buchwaldii 647
Ormocarpum 304
keniense 305
kirkii 305
mimosoides of KTS=
trachycarpum
muricatum 305
sennoides 305
trachycarpum 305
trichocarpum 306
Orthosiphon 631
hildebrandtii 631
Ostryoderris=*Xeroderris*
stuhlmanii=*X. stuhlmannii*
Osyris 353
abyssinica=*lanceolata*
compressa=*lanceolata*
lanceolata 353
Ouratea 123
bukobensis=*hiernii*
densiflora 124
hiernii 124
reticulata 124
sacleuxii 124
scheffleri 124
schusteri 124
sp. nov. of KTS=*schusteri*
Oxyanthus 523
goetzei 523
oxycarpus of KTS=*p.p. goetzei*,
p.p. pyriformis
pyriformis 524
speciosus 524
speciosus of KTS=*pyriformis*
zanguebaricus 524
Oxystigma 245
msoo 245
Ozoroa 428
insignis 429
obovata 429
Pachystela 457
brevipes 457
msolo 457
subverticillata 457
taxon A 457
Pachystigma 524
gillettii 524
keniense=*gillettii*
loranthifolium 525
Paederia 525
pospischilii 525
Pancovia 421
golungensis 422
hildebrandtii 422
sp. aff. ugandensis 421
Pandanus 645
kajui 645
kirkii 645
rabaiensis 646
Pappea 422
capensis 422
Paramacrolobium 245
coeruleum 245
Parinari 230
curatellifolia 231
Parkia 277
filicoidea 277
Parkinsonia 245
aculeata 246
anacantha 246
scioana 246
Parquetina 495
nigrescens 495
Passiflora 117
mollissima 117
Paullinia 422
pinnata 423
Pauridiantha 525
holstii=*paucinervis*
paucinervis 526
Pavetta 526
abyssinica 527
aethiopica 527
albertina=*subcana*
assimilis=*gardeniifolia*
capillipes=*sepium*
crassipes 527
crebrifolia 527
dalei=*hymenophylla*
dolichantha 528
elliottii 528
gardeniifolia 528
hochstetteri=*gardeniifolia*
hymenophylla 528
kenyensis=*abyssinica*
lamurensis=*abyssinica*
linearifolia 528
maitlandii=*abyssinica*
mangallana=*stenosepala*
manomoca=*sphaerobotrys*
oliverana 528
petraea=*gardeniifolia*
sansibarica 529
scandens=*sepium*
sennii=*uniflora*
sepium 529
shimbensis=*sansibarica*
silvicola=*abyssinica*
spaniotricha of KTS=*abyssinica*
sphaerobotrys 529
stenosepala 529
subcana 529
tanaica=*sphaerobotrys*
tarennoides 530
teitana 530
termitaria=*gardeniifolia*
ternifolia 530
trichocalyx=*elliottii*
trichosphaera=*sansibarica*
trichotropis=*abyssinica*
unguiculata=*subcana*
uniflora 530
yalaensis=*ternifolia*
Pavonia 172
grewioides=*propinqua*
kilimandscharica 173
propinqua 173
urens 173

- Peddiea* 97
fischeri 97
volkensii=*fischeri*
Peltophoropsis=*Parkinsonia*
scioana=*P. scioana*
Pemphis 92
acidula 92
Pentanopsis 531
fragrans 531
Pentarhopalopilia 352
umbellulata 352
Pentas 531
bussei 531
parvifolia 531
schimperana 531
Periploca 495
linearifolia 496
Philippia=*Erica*
benguelensis: exclude (the specimen=*E. mannii*)
excelsa=*E. excelsa*
keniensis=*E. trimera*
pallidiflora=*E. mannii*
Phoenix 644
reclinata 644
Phragmanthera 352
dschallensis 352
Phyllanthus 217
beillei=*welwitschii*
delpyanus 217
discoideus=*Margaritaria*
discoidea
engleri of list=*delpyanus*
fischeri 218
fluminis-athi 218
guineensis=*ovalifolius*
inflatus 218
kaessneri 218
kirkianus=*pinnatus*
lalambensis=*ovalifolius*
meruensis=*sepialis*
mittenianus=*sacleuxii*
muelleranus 218
muelleranus of KTS=*reticulatus*
ovalifolius 218
pinnatus 218
reticulatus 219
sacleuxii 219
sepialis 219
somalensis 219
stolzianus=*welwitschianus*
taitensis=*sacleuxii*
welwitschianus 220
sp. B of UKWF=*fluminis-athi*
Phyllogeiton=*Berchemia*
discolor=*B. discolor*
Phytolacca 89
dodecandra 89
octandra 89
Piaggiaea=*Wrightia*
demartiniana=*W. demartiniana*
Piliostigma 246
thonningii 246
Piper 66
capense 66
guineense 66
umbellatum 66
Pisonia 98
aculeata 98
grandis 99
Pistacia 429
aethiopica 429
Pithecellobium 277
dulce 277
Pittosporum 101
abyssinicum=*lanatum*
lanatum 101
mannii 102
spathicalyx 101
viridiflorum 102
Platycelyphium 306
voense 306
Plectranthus 631
alboviolaceus 632
albus 632
barbatus 632
ignarius 633
kamerunensis 633
lactiflorus 633
luteus 633
sylvestris 633
sp. B of UKWF=*barbatus*
sp. H of UKWF=*barbatus*
Pleiocarpa 482
pycnantha 482
Pleurostyliya 343
africana 343
Pluchea 559
bequaertii 559
dioscoridis 559
ovalis 560
Podocarpus 42
gracilior=*falcatus*
falcatus 42
latifolius 42
milanjianus=*latifolius*
usambarensis 43
Polyalthia 50
stuhlmannii 50
sp. of KTS=*stuhlmannii*
Polygonum 88
afromontanum 88
Polyscias 439
ferruginea=*fulva*
fulva 440
kikuyuensis 440
stuhlmannii 440
Polysphaeria 532
cleistocalyx 532
lanceolata 532
multiflora 532
parvifolia 532
Popowia=*Monanthotaxis*
buchananii=*M. buchananii*
djurensis=*M. buchananii*
sp. aff. oliverana=*M. parvifolia*
trichocarpa=*M. trichocarpa*
Populus 315
ilicifolia 315
Premna 619
angolensis 620
chrysoclada 620
corymbosa of KTS=*obtusifolia*
discolor 648
hildebrandtii 620
holstii=*resinosa*
maxima 620
obtusifolia 620
oligotricha 621
resinosa 620
senensis 621
velutina 621
Protea 100
caffra 100

- gaguedi 100
kilimandscharica=*caffra*
 madiensis 100
Prunus 227
 africana 227
Pseudarthria 306
 hookeri 306
Pseuderanthemum 605
 hildebrandtii 606
 ludovicianum 606
 tunicatum 606
Pseudobersama 406
 mossambicensis 406
Pseudomussaenda 533
 flava 533
 sp. nov. 533
Pseudoprosopis 278
 euryphylla 278
Pseudospondias 430
 microcarpa 430
Psiadia 560
 arabica=*punctulata*
 (*incana*: excluded, not in Kenya)
 punctulata 560
Psoralea 307
 foliosa 307
Psorospermum 148
 febrifugum 148
Psychotria 533
 abrupta=*Chazaliella abrupta*
 alsophila 534
 amboniana 534
 bagshawei 534
 crassipetala 534
 faucicola 535
 fractinervata 535
 (*goetzei*: excluded,
 not in Kenya)
 holtzii 535
 kassneri=*kirkii*
 kirkii 535
 lauracea 535
 leucopoda 536
 mahonii 536
 megistosticta=*mahonii*
 nairobiensis=*kirkii*
 orophila 536
 peduncularis 536
 petitii 537
 pseudoplatyphylla 537
 punctata 537
 riparia 537
 (*scheffleri*: excluded,
 not in Kenya)
 schliebenii 537
 taitensis 538
 tanganyikensis 538
 tarambassica=*kirkii*
 volkensii=*kirkii*
 sp. B of FTEA 538
 sp. C of FTEA 538
Psydrax 538
 faulknerae 538
 kaessneri 538
 livida 538
 parviflora 539
 polhillii 539
 recurvifolia 539
 schimperiana 539
 sp. B of Kew Bull. 540
Pteleopsis 137
 myrtifolia 137
 myrtifolia of KTS=*tetraptera*
 tetraptera 138
Pterolobium 247
 stellatum 247
Pycnocomma 220
 littoralis 220
Pycnostachys 634
 eminii 634
 meyeri 634
 umbrosa 634
Pygeum=*Prunus*
 africanum=*P. africana*
Pyrenacantha 346
 kaurabassana 347
 malvifolia 347
 vogeliana 347
Pyrostria 540
 bibracteata 540
 phyllanthoidea 540
Quassia 376
 undulata 376
Quisqualis 138
 littorea 138
Rapanea 461
 pulchra=*melanophloeos*
 melanophloeos 461
 rhododendroides=
 melanophloeos
Raphia 645
 farinifera 645
 monbuttorum of KTS=*farinifera*
 ruffia=*farinifera*
Rauvolfia 483
 caffra 483
 mannii 483
 mombasiana 484
 rosea=*mannii*
Rawsonia 109
 lucida 110
 reticulata 110
Rhamnus 357
 prinoides 357
 staddo 358
 uhligii=*staddo*
Rhaphiostylis 347
 beniniensis 347
Rhizophora 145
 mucronata 145
Rhodognaphalon=*Bombax*
 schumannianum=
 B. rhodognaphalon
Rhoicissus 364
 revoilii 364
 tridentata 365
Rhopalopilina=*Pentarhopalopilina*
 umbellulata=*P. umbellulata*
Rhus 430
 longipes 430
 natalensis 431
 quartiniana 431
 ruspolii 431
 tenuinervis 431
 tenuinervis of KTS=*vulgaris*
 vulgaris 431
Rhynchosia 307
 congensis 307
 hirta 308
 resinosa 308
Ricinodendron 220
 heudelotii 220
 tomentellum=*heudelotii*

- Ricinus 221
 communis 221
 Rinorea 84
 angustifolia 84
 arborea 84
 brachypetala 84
 convallariiflora=
 convallaroides
 convallaroides 85
 elliptica 85
 ferruginea 85
 gazensis=ferruginea
 ilicifolia 85
 kaessneri=squamosa
 squamosa 85
 poggei=brachypetala
 Ritchiea 80
 albersii 80
 capparoides 80
 Rothmannia 541
 fischeri 541
 fischeri of KTS=
 p.p. fischeri, p.p. ravae
 longiflora 541
 macrosiphon 541
 manganjae 541
 ravae 541
 urcelliformis 541
 whitfieldii of KTS=
 macrosiphon
 Rourea 436
 coccinea 436
 minor 436
 orientalis 436
 thomsonii 436
 Royena=Diospyros
 amnicola=D. zombensis
 macrocalyx=D. usambarensis
 Rubus 228
 adolphi-friederici=apetalus
 apetalus 228
 exsuccus=apetalus
 friesiorum 229
 keniensis 229
 niveus 229
 pinnatus 229
 rigidus=apetalus
 scheffleri 229
 steudneri 230
 volkensii 230
 Ruellia 606
 megachlamys 607
 Rumex 88
 usambarensis 88
 Ruspolia 607
 pseuderanthemoides 607
 Rutidea 542
 fuscescens 542
 orientalis 542
 smithii 542
 syringoides of KTS=orientalis
 Ruttya 607
 fruticosa 607
 Rytigynia 543
 acuminatissima 543
 amaniensis=celastroides
 bugoyensis 543
 butaguensis=bugoyensis
 celastroides 543
 eickii 544
 euclioides=uhligii
 friesiorum=Canthium
 oligocarpum
 induta 544
 loranthifolia=Pachystigma
 loranthifolia
 microphylla=celastroides
 mrmaensis 544
 neglecta 544
 neglecta of KTS=p.p. neglecta,
 p.p. acuminatissima
 oligacantha=celastroides
 parvifolia 544
 schumannii=uhligii
 tomentosa=Tapiphyllum
 schumannianum
 uhligii 544
 sp. 43 of FTEA 544
 Saba 484
 comorensis 484
 florida=comorensis
 Sacleuxia 496
 newii 496
 tuberosa 496
 Salacia 343
 cerasifera 343
 elegans 343
 erecta 344
 lehmbeckii 344
 leptoclada 344
 madagascariensis 344
 stuhlmanniana 344
 Salix 316
 hutchinsii=subserrata
 subserrata 316
 Salsola 90
 dendroides 90
 Salvadora 349
 persica 349
 Samanea see Albizia
 saman=A. saman
 Santaloides see Rourea
 afzelii=R. minor
 splendida=R. minor
 Sapium 221
 ellipticum 221
 triloculare 222
 Satanocrater 608
 paradoxa 608
 Savia 222
 fadenii 222
 Scaevola 571
 plumieri 571
 sericea 571
 taccada=sericea
 Schefflera 440
 abyssinica 440
 myriantha 440
 polysciadia=myriantha
 volkensii 440
 Schinus 432
 molle 432
 Schizogygia 484
 coffaeoides 484
 Schlechterina 117
 mitostemmatoides 117
 Schrebera 472
 alata 473
 Sclerocarya 432
 birrea 432
 caffra=birrea ssp. caffra
 gillettii 433
 Sclerochiton 608
 boivinii 608

- holstii*=*vogelii*
vogelii 608
Scolopia 110
rhamniphylla 110
rhamnophylla=*rhamniphylla*
stolzii 110
stuhlmannii of *KTS*=
rhamniphylla
theifolia 111
zeyheri 111
Scorodophloeos 248
fischeri 248
Scutia 358
myrtina 358
Secamone 497
africana 497
parvifolia 497
punctulata 497
sansibariensis 497
stuhlmannii 498
sp. A of UKWF 498
Securidaca 86
longipedunculata 86
welwitschii 87
Securinea=*Flueggia*
virosa=*F. virosa*
Senecio 560
amblyphyllus=*johnstonii*
barbatipes=*johnstonii*
battiscombei=*johnstonii*
brassica=*keniensis*
brassiciformis=*keniensis*
cheranganiensis=*johnstonii*
dalei=*johnstonii*
elgonensis=*johnstonii*
johnstonii 560
keniensis 562
keniensis x keniodendron 562
keniodendron 562
maranguensis 562
Senna 248
alexandrina 248
baccarinii 248
bicapsularis 249
didymobotrya 249
longiracemosa 249
obtusifolia 249
petersiana 249
septemtrionalis 250
singueana 250
Sericostachys 91
scandens 91
Sesamothamnus 593
busseanus 593
rivae 594
Sesbania 308
bispinosa 309
dummeri 309
goetzei 309
keniensis 309
macrantha 309
pubescens of *KTS*=*sesban*
quadrata 309
sericea 309
sesban 310
speciosa 310
Sideroxylon 458
diospyroides=*inermis*
inermis 458
Simirestis=*Hippocratea*
goetzei=*H. goetzei*
Sloetiopsis=*Streblus*
usambarensis=*S. usambarensis*
Smilax 640
anceps 640
aspera 641
goetzeana=*aspera*
kraussiana=*anceps*
Solanecio 562
angulatus 562
mannii 563
Solanum 578
aculeastrum 579
arundo 580
benderianum 580
dennekense 580
giganteum 580
goetzei 580
hastifolium 580
incanum 581
indicum 581
jubae 581
mauense 581
mauritanum 582
melastomoides 582
nakurense=*terminale*
pampaninii 582
renschii 582
richardii 582
schumannianum 582
taitense 582
terminale 583
zanzibarense 583
sp. G of UKWF 583
sp. J of UKWF 583
Solenostemon 635
shirensis 635
zambesiacus=*shirensis*
Sonneratia 94
alba 94
Sophora 310
inhambanensis 310
tomentosa 311
Sorindeia 433
madagascariensis 433
obtusifoliolata=
madagascariensis
Sparmannia 159
ricinocarpa 159
Spathionema 311
kilimandscharicum 311
Spathodea 592
campanulata 592
nilotica=*campanulata*
Sphaerocoryne 50
gracilis 50
Spirostachys 222
africana 222
venenifera 223
Stadmania 423
oppositifolia 423
sideroxylon=*oppositifolia*
Stadmannia=*Stadmania*
Steganotaenia 442
araliacea 443
Stephania 63
abyssinica 63
cyanantha 63
Sterculia 166
africana 167
appendiculata 167
dawei 167
rhynchocarpa of *KTS*=*africana*
schliebenii 168

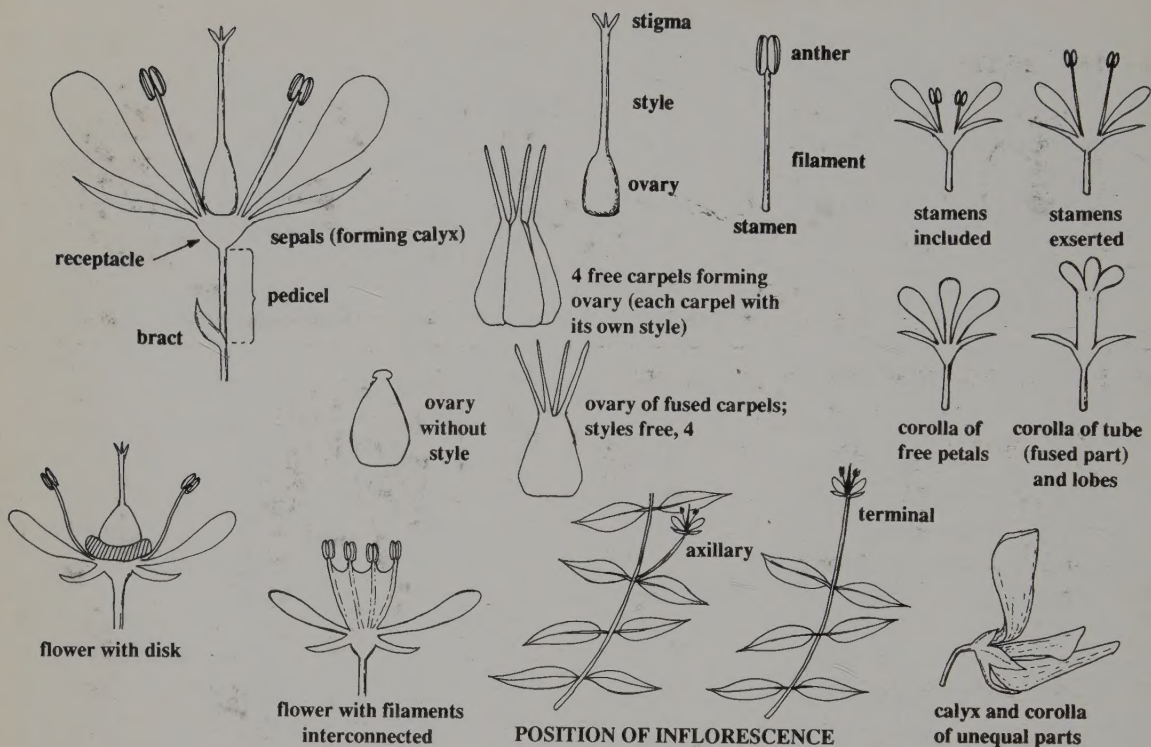
- stenocarpa 168
sp. of KTS=stenocarpa
 Stereospermum 593
 kunthianum 593
 Stictocardia 648
 incompta 648
 Stoebe 563
 kilimandscharica 563
 Streblus 332
 usambarensis 332
 Strombosia 350
 scheffleri 350
 Strophanthus 485
 courmontii 485
 hispidus: excluded
 (not in Kenya)
 kombe 485
 mirabilis 485
 petersianus 486
 zimmermannianus 486
 Struthiola 97
 thomsonii 97
 Strychnos 464
 angolensis 465
 cocculoides 465
 decussata 465
 dysophylla=madagascariensis
 henningsii 465
 innocua 465
 innocua of KTS=
 madagascariensis
 madagascariensis 466
 mellodora 466
 mitis 466
 panganensis 466
 scheffleri 466
 spinosa 467
 usambarensis 467
 Styasasia 609
 sp. 609
 Suaeda 90
 monoica 90
 Suregada 223
 procera 223
 zanzibariensis 223
 Suriana 376
 maritima 376
 Synadenium 223
 compactum 224
 glaucescens=pereskiifolium
 grantii 224
 molle 224
 pereskiifolium 224
 volkensii 224
 Synaptolepis 98
 alternifolia 98
 kirkii 98
 longiflora of KTS=kirkii
 Syzygium 126
 cordatum 126
 cumini 127
 guineense 127
 sclerophyllum 127
 sclerophyllum x guineense 127
 Tabernaemontana 486
 elegans 486
 holstii=pachysiphon
 johnstonii=stapfiana
 pachysiphon 486
 stapfiana 486
 usambarensis=ventricosa
 ventricosa 487
 Tacazzea 498
 apiculata 498
 galactogoga 498
 Tamarindus 250
 indica 250
 Tamarix 113
 aphylla 113
 nilotica 114
 orientalis=aphylla
 Tapiphyllum 545
 schumannianum 545
 Tapura 233
 fischeri 233
 Tarchonanthus 563
 camphoratus 564
 Tarennia 545
 boranensis=graveolens
 drummondii 546
 friesiorum=pavettoides
 graveolens 546
 kibuwae 546
 littoralis 546
 nigrescens 547
 pavettoides 547
 supra-axillaris 547
 trichantha 547
 wajirensis 547
 Teclea 368
 amaniensis 368
 grandifolia 368
 hanangensis 368
 nobilis 369
 pilosa=Vepris glomerata
 simplicifolia 369
 trichocarpa 369
 villosa=trichocarpa
Tecleopsis see *Vepris*
 glandulosa=Vepris glandulosa
 Tennantia 547
 sennii 547
 Tephrosia 311
 aequilata 311
 (elata: too small, excluded)
 emeroides 312
 interrupta 312
 nyikensis 312
 vogelii 312
 Terminalia 138
 boivinii 139
 brevipes 139
 brownii 139
 catappa 140
 fatraea=boivinii
 kilimandscharica 140
 mollis 140
 orbicularis 140
 parvula 140
 polycarpa 140
 prunioides 141
 sambesiaca 141
 somalensis=polycarpa
 spinosa 141
 Tetracera 101
 boiviniana 101
 litoralis 101
 Tetradenia 635
 riparia 635
 Tetrapleura 278
 tetraptera 278

- Thecacoris 225
 usambarensis 225
 Thespesia 173
 danis 173
 populnea 173
 Thunbergia 609
 affinis=holstii
 guerkeana 609
 holstii 609
 kirkii 610
 Thylachium 81
 africanum 81
 thomasii 81
 Tiliacora 63
 funifera 63
 kenyensis 64
 sp. 4 of FTEA=funifera
 Tinnea 635
 aethiopica 635
 Tinospora 64
 caffra 64
 oblongifolia 64
 Tithonia 564
 diversifolia 564
 Toddalia 370
 asiatica 370
 Toddaliopsis 370
 sansibarensis 371
Tournefortia see *Argusia*
 argentea=*A. argentea*
 Toussaintia 51
 orientalis 51
Trachylobium=*Hymenaea*
 verrucosum=*H. verrucosa*
 Trema 319
 guineensis=orientalis
 orientalis 319
 Triainolepis 547
 africana 548
 hildebrandtii=africana
 Triaspis 176
 erlangeri=niedenzuiana
 mozambica 176
 niedenzuiana 177
 Tricalysia 548
 bridsoniana 548
 microphylla 548
 myrtifolia=pallens
 niamniamensis 549
 ovalifolia 549
 pallens 549
 ruandensis 549
 Trichilia 407
 dregeana 407
 emetica 407
 rôka=emetica
 strigulosa=dregeana
 volkensii=*Lepidotrichilia volkensii*
 sp. nov. of KTS=emetica
 Trichocladus 314
 ellipticus 314
 Triclisia 64
 sacleuxii 64
 Trilepisium 333
 madagascariense 333
 Trimeria 111
 bakeri=grandifolia
 grandifolia 111
 tropica=grandifolia
 Tristellateia 177
 africana 177
 Triumphetta 160
 flavescens 160
 macrophylla=tomentosa
 (pilosa: too small, excluded)
 rhomboidea 160
 tomentosa 160
 Turbina 588
 stenosiphon 588
 Turraea 407
 abyssinica 408
 barbata 408
 cornucopia 408
 fischeri: excluded
 (not in Kenya)
 floribunda 408
 holstii 409
 kaessneri=floribunda
 kokwaroana 409
 mombassana 409
 nilotica 409
 parvifolia 409
 robusta 410
 wakefieldii 410
 sp. nov. of KTS=cornucopia
 sp. 1 of KTS=barbata
 sp. 2 of KTS=kokwaroana
 Uncaria 550
 africana 550
Uragoga=*Psychotria*
 macrophylla=*P. tanganyikensis*
 suaveolens=*P. peduncularis*
 Urera 334
 cameroonensis=trinervis
 fischeri=sansibarica
 hypselerodendron 334
 samsibarica 335
 trinervis 335
 Uvaria 51
 acuminata 51
 denhardtiana 52
 dielsii=lucida
 faulknerae 52
 kirkii 52
 leptocladon 52
 lucida 52
 scheffleri 53
 welwitschii 53
Uvariastrum
 sp. of KTS=*Cananga*
 Uvari dendron 53
 anisatum 53
 gorgonis 53
 kirkii 53
 Uvariopsis 54
 congensis 54
 Vangueria 550
 acutiloba=madagascariensis
 apiculata 550
 campanulata=infausta
 infausta 550
 linearisepala=volkensii
 madagascariensis 551
 randii 551
 rotundata=infausta
 tomentosa of KTS=infausta
 volkensii 551
 Vatovaea 313
 pseudolablab 313
Vellozia=*Xerophyta*
 aequatorialis: not in Kenya
 spekei=*X. spekei*
 tomentosa=*X. spekei*

- Ventilago 358
 diffusa 358
 Vepris 371
 eugeniifolia 371
 glandulosa 371
 glomerata 371
 lanceolata 372
 ngamensis 372
 samburuensis 372
 uguenensis 372
 sp. nov. of KTS=glomerata
 Vernonia 564
 abyssinica=schimperi
 adoensis 565
 ampla=myriantha
 amygdalina 566
 aurantiaca 566
 auriculifera 566
 biafrae 566
 brachycalyx 566
 calvoana=hymenolepis
 cinerascens 566
 colorata 567
 dumicola 567
 fischeri 567
 hildebrandtii 567
 hochstetteri 567
 holstii 567
 homilantha 568
 homilocephala=hymenolepis
 hymenolepis 568
 jugalis=hochstetteri
 lasiopus 568
 myriantha 568
 oxyura=colorata
 pteropoda 568
 richardiana=theophrastifolia
 schimperi 569
 seretii=theophrastifolia
 subscandens 569
 subuligera=myriantha
 syringifolia 569
 theophrastifolia 569
 tuffnelliae=biafrae
 urticifolia 569
 usambarensis 569
 wakefieldii 569
 wollastonii 570
 zanzibarensis 570
 sp. B of UKWF=fischeri
 sp. E of UKWF=subscandens
 Vismia 148
 orientalis 149
 Vitellariopsis 458
 kirkii 458
 Vitex 621
 amboniensis=ferruginea
 balbi=payos
 carvalhi=cf. ferruginea
 doniana 622
 ferruginea 622
 fischeri 622
 keniensis 622
 lamiana=strickeri
 mombassae 623
 negundo=trifolia
 payos 623
 (schliebenii) 623
 strickeri 623
 tangensis=ferruginea
 trifolia 624
 zanzibarensis 624
 Voacanga 487
 africana 487
 lutescens=africana
 obtusa=thouarsii
 thouarsii 488
 Warburgia 112
 stuhlmannii 112
 ugandensis 113
 Warneckea=Memecylon
 amaniensis=M. amaniense
 Whitfieldia 610
 elongata 610
 stuhlmannii 610
 Withania 583
 somniafera 583
 Woodfordia 93
 uniflora 93
 Wotsit 853
 Wrightia 488
 demartiniana 488
 Xeroderris 313
 stuhlmannii 313
 Xeromphis
 keniensis=Tennantia sennii
 nilotica=Catunaregam nilotica
 obovata of KTS=Catunaregam
 spinosa
 sp. of KTS=Catunaregam
 spinosa
 Xerophyta 646
 spekei 646
 Ximenia 350
 americana 350
 caffra=americana var. caffra
 Xylocarpus 40
 benadirensis=granatum
 granatum 40
 moluccensis 40
 Xylopia 54
 aethiopica 54
 arenaria 54
 holtzii=parviflora
 parviflora 55
 Xylothea 112
 tettensis 112
 Xymalos 55
 monospora 55
 Zanha 423
 africana 423
 golungensis 424
 Zanthoxylum 372
 chalybeum 373
 gillettii 373
 holtzianum 373
 mildbraedii 374
 paracanthum 374
 rubescens 374
 usambarense 374
 Zehneria 119
 anomala 119
 Zimmermannia 225
 ovata 225
 Ziziphus 359
 abyssinica 359
 hamur 359
 mauritiana 359
 mucronata 360
 pubescens 360
 robertsoniana 360
 spina-christi 361
 Zygodia=Baissea
 melanocephala=B. myrtifolia

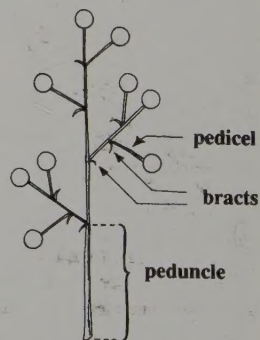
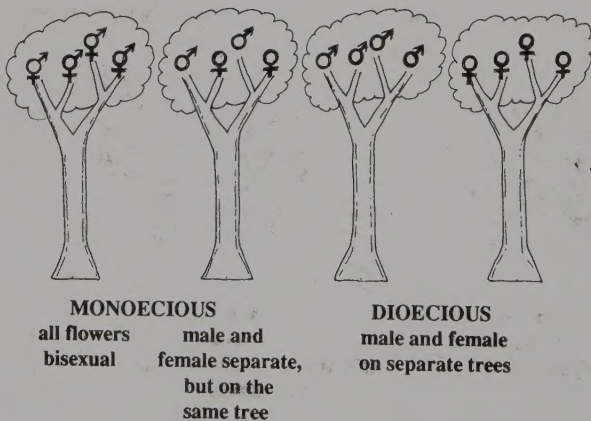
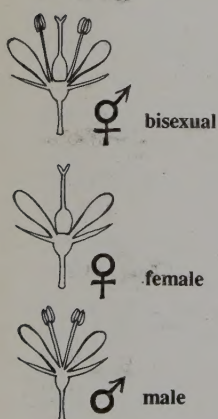
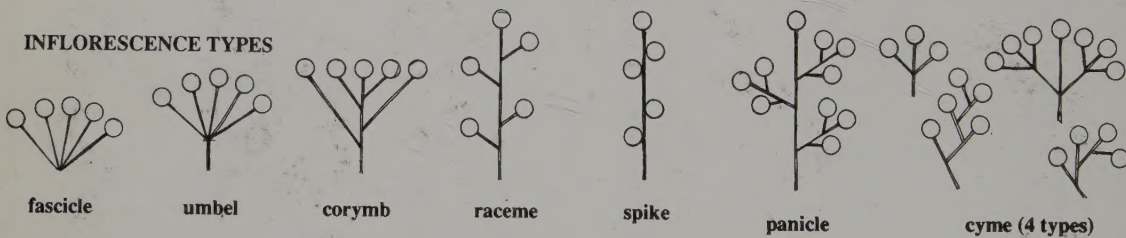
722 Family index

Acanthaceae	594	Ebenaceae	445	Palmae	641
Agavaceae see Aloeaceae		Ericaceae	443	Pandanaceae	645
Alangiaceae	437	Erythroxylaceae	177	Papilionaceae	278
Aloeaceae	636	Euphorbiaceae	179	Passifloraceae	114
Amaranthaceae	91	Flacourtiaceae	102	Pedaliaceae	593
Anacardiaceae	425	Goodeniaceae	571	Phytolaccaceae	89
Ancistrocladaceae	124	Gramineae	646	Piperaceae	66
Annonaceae	43	Guttiferae	145	Pittosporaceae	101
Apiaceae see Umbelliferae		Hamamelidaceae	314	Poaceae see Gramineae	
Apocynaceae	473	Hernandiaceae	56	Podocarpaceae	42
Aquifoliaceae	335	Hypericaceae see Guttiferae		Polygalaceae	86
Araliaceae	438	Icacinaceae	345	Polygonaceae	88
Arecaceae see Palmae		Labiatae	624	Portulacaceae	87
Asclepiadaceae	488	Lamiaceae see Labiatae		Proteaceae	99
Balanitaceae	377	Lauraceae	56	Ranunculaceae	59
Begoniaceae	120	Lecythidaceae	127	Rhamnaceae	353
Berberidaceae	60	Liliaceae see Aloeaceae, Dracae- naceae		Rhizophoraceae	142
Bignoniaceae	590	Linaceae	179	Rosaceae	226
Bombacaceae	168	Lobeliaceae	570	Rubiaceae	499
Boraginaceae	571	Loganiaceae	461	Rutaceae	365
Burseraceae	379	Loranthaceae	352	Salicaceae	315
Buxaceae	314	Lythraceae	92	Salvadoraceae	347
Caesalpiniaceae	234	Malphigiaceae	174	Samydaceae see Flacourtiaceae	
Canellaceae	112	Malvaceae	169	Santalaceae	353
Capparaceae	67	Melastomataceae	128	Sapindaceae	411
Capparidaceae see Capparaceae		Meliaceae	404	Sapotaceae	449
Caricaceae	120	Melanthaceae	424	Scrophulariaceae	588
Casuarinaceae	316	Menispermaceae	60	Simaroubaceae	374
Cecropiaceae see Moraceae		Mimosaceae	251	Smilacaceae	640
Celastraceae	335	Monimiaceae	55	Solanaceae	577
Chaillatiaceae see Dichapetalaceae		Montiniaceae	226	Sonneratiaceae	93
Chenopodiaceae	89	Moraceae	320	Sterculiaceae	161
Chrysobalanaceae	230	Moringaceae	81	Tamaricaceae	113
Combretaceae	129	Musaceae	636	Thymeleaceae	95
Compositae	552	Myricaceae	316	Tiliaceae	149
Connaraceae	433	Myrsinaceae	459	Turneraceae	66
Convulvulaceae	584	Myrtaceae	125	Ulmaceae	317
Cornaceae	437	Nyctaginaceae	98	Umbelliferae	442
Crassulaceae	87	Ochnaceae	120	Urticaceae	333
Cucurbitaceae	117	Olcaceae	349	Velloziaceae	646
Cupressaceae	41	Oleaceae	467	Verbenaceae	611
Cyatheaceae	39	Oliniaceae	94	Violaceae	83
Cycadaceae	39	Onagraceae	94	Vitaceae	361
Cyclocheilaceae	624	Opiliaceae	351	Zamiaceae	40
Dichapetalaceae	231				
Dilleniaceae	100				
Dracaenaceae	638				



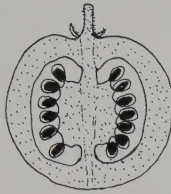
POSITION OF INFLORESCENCE

INFLORESCENCE TYPES



INFLORESCENCE TERMS

FLESHY FRUITS



Berry

No hard layer; 1-many seeded



Drupe

1-several seeds, each surrounded by a stony layer

DRY FRUITS - INDEHISCENT (not splitting open)



Achene

Small, single-seeded



Samara

Winged achene



Nut

Single seeded,
with woody outer layer

DEHISCENT FRUITS (splitting open)



Follicle

Splits on one side



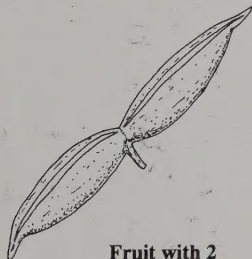
Legume

Splits into 2 valves



Capsule

Splits into several valves; dry



**Fruit with 2
mericarps**

Monocarps and mericarps originate from a single flower



**Fruit with many
monocarps**



**Fruit
syncarpous**

originate from many flowers
close together



ROUND



ELLIPSOID



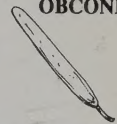
OVOID



OBOVOID



OBCONIC




CYLINDRICAL



FUSIFORM

GENERAL TERMS



This book presents

- All trees, shrubs and lianas (growing to over 1.5 meters tall) known to occur in Kenya.
- A short, to-the-point description; the area where it occurs; its flowering season; the vegetation type in which it occurs; local name and use of the plant.
- 700 black and white line drawings; twenty-six of Joy Adamson's colour paintings.
- 1500 distribution maps placed next to the description for easy reference.
- Practical, easy to use keys to the species with drawings to illustrate more intricate points.
- An illustrated glossary.
- Indices for local names, groups by 43 local languages as well as Swahili, Standard and Trade Names.

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